

DOCUMENT RESUME

ED 376 290

CE 067 518

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TITLE Learning Style Activities for Computer Applications.
Field Review.
INSTITUTION Texas Univ., Austin. Extension Instruction and
Materials Center.
SPONS AGENCY Texas Education Agency, Austin.
PUB DATE 94
NOTE 319p.
PUB TYPE Guides - Classroom Use - Teaching Guides (For
Teacher) (052)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Brainstorming; *Cognitive Style; Competence;
*Competency Based Education; Computer Assisted
Instruction; Computer Graphics; *Computer Literacy;
*Computer Oriented Programs; Computers; Data Bases;
Data Processing; Desktop Publishing; Educational
Games; Learning Activities; *Learning Strategies;
Metaphors; Mnemonics; *Office Occupations Education;
Questioning Techniques; Records (Forms); Secondary
Education; Social Change; Spreadsheets; Teaching
Methods; Telecommunications; Word Processing

IDENTIFIERS *Texas

ABSTRACT

This document contains a composite of learning activities for use in a secondary-level course in business computer applications. The collection is unique in that the individual learning activities constituting it have each been tailored to one or more of the diverse learning styles possessed by individual students. The activities are grouped into the following categories: computer related, word processing, spreadsheet, database, desktop publishing, graphics, telecommunications, and social implications. Each learning activity is presented on a learning style activity form containing some or all of the following: competency addressed; activity name; learning style strategy used; perceptual strength(s) targeted; desired student outcome; summary of the activity; suggested modifications; teacher preparation required; suggested means of assessment/evaluation; feasibility of saving all or part of the activity for inclusion in a portfolio; suggested time frame; and nationally/state-identified competencies addressed. Appended are the following: information about the 17 learning styles to which the various activities have been tailored; additional information about typical right and left brain behaviors and characteristics of analytical and global students; and lists of the business computer applications essential elements and competencies addressed by the individual activities. Also included are the forms developed for field review of the activities. (MN)

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44420165
TX 94-CD05

Field Review

Learning Style Activities

for Computer Applications

by

Jan Patton
Curriculum Specialist

Published by

The University of Texas at Austin
Educational Resources
Extension Instruction and Materials Center
Division of Continuing Education

Developed under a contract with

Texas Education Agency
Austin, Texas

1994

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Foreword

Learning Style Activities are a composite of activities designed to transform the everyday computer activities into an exciting experience. A variety of activities are included to enhance the learning of all students. Thus they will allow both the student and the teacher to succeed in their goals.

The Center of Success in Learning located in Dallas, Texas is the primary source for training, ideas, and methodology utilized to develop these activities and for content within the Appendices A & B materials. Usage and adaptation of these materials has been approved by Bitsy Thomas from the CSL. It is recommended that all teachers take advantage of learning style training from the center either through attending their three or five day seminars as an individual or with other members of their districts. It should be noted that the CSL also provides on-site training for school districts. Contact CSL at:

Center for Success in Learning
17000 Preston Road, #400
Dallas, TX 75248
(800) 488-9435/(214) 407-9277

In addition to the CSL, the development of these activities could not have taken place without the assistance of Lisa Neese, Pampa ISD. Lisa has degrees in social work, elementary education, and special education from Baylor University and West Texas A&M. She has taught special education and gifted and talented and elementary education for six years. Lisa was selected by her district to receive training from the Center of Successful Learning and utilized her skills in training teachers in her district. She uses these techniques and her classroom is a model for Learning Style at Baker Elementary in Pampa. Lisa trained the Business Computer Applications writing team using the Center of Success in Learning materials and techniques. In addition, she worked with each of the writers individually providing support and assistance. You may think--what does someone with a background in elementary education have to do with business education. Lisa has lived with business education her entire life--her mother is Bette Carpenter who is a business teacher educator at West Texas A & M in Canyon. Lisa has also presented parts of the learning styles concepts at the 1993 and 1994 Improvement Conferences with her mother Bette.

The Business Computer Applications activities writing team come from varied backgrounds and experiences.

- *Bette Carpenter*, former business educator, community college teacher, current teacher educator, and executive secretary of the Texas Business Education Association.
- *Irma Flores*, former business educator, presently director of office education and Business Professionals of America State Supervisor at the Texas Education Agency.
- *LaDean Houck*, business educator at Lamar High School, Arlington; professional speaker, and author of two books.
- *Bennie Walker*, former secondary business educator, junior college computer teacher, and teacher educator; and currently working with the Texas Education Agency.
- *Valerie Woodard*, former business educator with more than 10 years of experience in industry. Valerie presently works with potential drop outs who are in trouble with the law in the San Antonio area.

The writers have done an exceptional job in developing activities in areas of their expertise. After field testing the materials I feel that you and the students will agree that their results are exciting!

July, 1994

Dear Educator:

Welcome. You have chosen to take part in a classroom experience both you and your students will appreciate and enjoy. Finally all of our research education and experience have come together into a package of learning activities that make sense.

With our past curriculum we have only been reaching about 30-40% of our students now, taking into account individual learning styles we can teach to our whole class--the slower learner to the gifted; visual and auditory; and tactile and kinesthetic. The diversity of our students continues to expand each year--it is time to expand to meet this diversity.

This curriculum gives us the opportunity to provide success for our students as well as open the door to their creativity, i.e. higher order thinking skills. Enclosed you will find exciting activities referenced with a short explanations, examples in the appendix. Remember, these activities are transferable , expandable and flexible. Individual modifications and extensions will be made possible because of your experiences.

We have worked very hard on these curriculum activities to incorporate good practices into each activity. Your students will love the variety and you will love the successful results.

Have fun with a great year ahead.

Jan Patton, Curriculum Specialist

and

The BCA Writing Team

INSTRUCTIONS

1. Fill out the Agreement form indicating your commitment to the project. Fill out the approximate time frames. You may revise them later by calling or writing. A copy of the form will be returned to you.
2. Please use the evaluation sheets enclosed with the material. Duplicate enough forms for each unit. OR, you may key in your responses on disk. The files found on the disk are saved in ASCII format and should be able to be used in any word processor. Then print out the file you have responded to and send to the designated person along with any samples or other materials that will contribute to the material.

You will be contacted in late August or early September indicating who your contact person will be and where to send your evaluations.

Learning Style Field Review

Agreement

Name: _____

Home Address: _____

School: _____

School Address: _____

Home Phone: _____ School Phone: _____

School Administrator: _____

I, _____, agree to use the materials available through the learning style field review and to send my review of them to the designated personnel in a timely manner. Should at any time during the project I decide not to continue with the project I will call the coordinator and make arrangements for the termination of the agreement.

In participating in the field review, I estimate that I will have completed the designated topic areas by the following dates and will send back the reviews for each area within two (2) weeks of completion according to the schedule I have indicated. I will notify the designated project coordinator of any variance in schedule.

Topic	Estimated Completion	Designated Send Date	Actual Date Sent
Computer Related	_____	_____	_____
Word Processing	_____	_____	_____
Spreadsheet	_____	_____	_____
Database	_____	_____	_____
Telecommunications	_____	_____	_____
Desktop Publishing	_____	_____	_____
Graphics	_____	_____	_____
Social Implications	_____	_____	_____

My name and my school's name will be acknowledged in the final publication. I understand letters will be written to the administrators listed above.

Signature: _____ Date: _____

Explanation of Learning Style Activity Form Format

Learning Style Strategy:

See explanation for each of the learning style strategies:

Appendix A	Page	Analysis	Page
Brainstorming	1	Appendix A	
Circle of Knowledge	3	Questioning Strategy for Secondary	
Game-Making	4	Students	11
Highlighting	5	Role Play	12
Making Memory Banks and Memory		Simulations	13
Bank Cards	6	Small Group Activities	14
Metaphorical Thinking	7	Case Study: Analysis, Problem Solving	14
Mind-Mapping, Webbing or Networking	8	Group Analysis: Critical Thinking,	
Mnemonics	9	Evaluation	15
Acronyms	9	Visual Cues	17
Chaining Sentences	9	Simple Picture Illustrations	17
Metaphorical Thinking	9	Memory Tools	17
Questioning Strategies	10	Picture Chains	17

LEARNING STYLE STRATEGY:

What strategy the activity uses

PERCEPTUAL STRENGTHS:

Which of the perceptual strengths is addresses. There may be one or all four.

ACTIVITY DYNAMICS:

Would this be individual, small group or large group

STUDENT OUTCOME:

What student should get out of the activity.

SUMMARY:

Description of the activity

SUGGESTED MODIFICATIONS:

Ways to make changes in the activity that would provide a similar result.

TEACHER PREPARATION:

Supplies/Materials Needed:

Any supplies or materials that would need to be provided to complete the activity. These may be materials that students bring or that are provided by the teacher/school.

Step-by-step Preparation:

Special instructions and/or order of doing things.

MEANS OF ASSESSMENT:

How you would assess this activity.

CONTRIBUTION TO PORTFOLIO

Would you place a part or the results of this activity in a student's portfolio. If so, what would you place here.

EVALUATION:

How would you evaluate this activity.

LEARNING STYLE STRATEGY:	What strategy the activity uses
PERCEPTUAL STRENGTHS:	Which of the perceptual strengths is addresses. There may be one or all four.
ACTIVITY DYNAMICS:	Would this be individual, small group or large group
STUDENT OUTCOME:	What student should get out of the activity.
SUMMARY:	Description of the activity
SUGGESTED MODIFICATIONS:	Ways to make changes in the activity that would provide a similar result.
TEACHER PREPARATION:	
Supplies/Materials Needed:	Any supplies or materials that would need to be provided to complete the activity. These may be materials that students bring or that are provided by the teacher/school.
Step-by-step Preparation:	Special instructions and/or order of doing things.
MEANS OF ASSESSMENT:	How you would assess this activity.
CONTRIBUTION TO PORTFOLIO	Would you place a part or the results of this activity in a student's portfolio. If so, what would you place here.
EVALUATION:	How would you evaluate this activity.
ANSWER KEY:	Will this project have an answer key?
TIME FRAME:	The suggested amount of time that this activity should take.
TAAS:	What part(s) of TAAS will this activity address.
SCANS:	Which part(s) of SCANS will this activity address.
COMMON EE(s):	Which common elements, if any, this activity addresses.

Field Review Evaluation Form

Submitted by: _____

Preface, Agreement, Appendices, Etc.

YES NO The instructions are easy to read. If your answer is NO, please photocopy and mark the instructions up with suggestions and clarifications.

YES NO The instructions are easy to understand. If your answer is NO, please explain by photocopying the instructions and indicate which portions you do not understand.

YES NO The learning style material in Appendices was helpful. If your answer is NO, please explain below and/or photocopy and write directly on the material.

YES NO I liked the format of the material. If NO, explain below or photocopy a portion, make corrections and attach suggestions.

YES NO I was frustrated with the material. If YES, explain below. If more space is needed, write on back.

Additional comments:

Field Review Evaluation Form Computer-Related

Submitted by: _____

Activity Name: _____

YES NO I used this activity.

YES NO I tried or wanted to use this activity but did not because: _____

YES NO I liked the activity. If not, why not: _____

What additions, changes, and/or modifications would you make: _____

STUDENT OUTCOME:

SUMMARY:

SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:
Supplies/Materials Needed:

Step-by-step Preparation:

Field Review Evaluation Form Computer-Related

Submitted by: _____

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

ANSWER KEY:

TIME FRAME:

TAAS:

SCANS:

COMMON EE(s):

Field Review Evaluation Form

Word Processing

Submitted by: _____

Activity Name: _____

YES NO I used this activity.

YES NO I tried or wanted to use this activity but did not because: _____

YES NO I liked the activity. If not, why not: _____

What additions, changes, and/or modifications would you make: _____

STUDENT OUTCOME:

SUMMARY:

SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:

Supplies/Materials Needed:

Step-by-step Preparation:

Field Review Evaluation Form Word Processing

Submitted by: _____

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

ANSWER KEY:

TIME FRAME:

TAAS:

SCANS:

COMMON EE(s):

Field Review Evaluation Form Database

Submitted by: _____

Activity Name: _____

YES NO I used this activity.

YES NO I tried or wanted to use this activity but did not because: _____

YES NO I liked the activity. If not, why not: _____

What additions, changes, and/or modifications would you make: _____

STUDENT OUTCOME:

SUMMARY:

♦ SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:

Supplies/Materials Needed:

Step-by-step Preparation:

Field Review Evaluation Form Database

Submitted by: _____

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

ANSWER KEY:

TIME FRAME:

TAAS:

SCANS:

COMMON EE(s):

Field Review Evaluation Form Spreadsheet

Submitted by: _____

Activity Name: _____

YES NO I used this activity.

YES NO I tried or wanted to use this activity but did not because: _____

YES NO I liked the activity. If not, why not: _____

What additions, changes or modifications would you make: _____

STUDENT OUTCOME:

SUMMARY:

SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:

Supplies/Materials Needed:

Step-by-step Preparation:

Field Review Evaluation Form Spreadsheet

Submitted by: _____

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

ANSWER KEY:

TIME FRAME:

TAAS:

SCANS:

COMMON EE(s):

Field Review Evaluation Form Graphics

Submitted by: _____

Activity Name: _____

YES NO I used this activity.

YES NO I tried or wanted to use this activity but did not because: _____

YES NO I liked the activity. If not, why not: _____

What additions, changes, and/or modifications would you make: _____

STUDENT OUTCOME:

SUMMARY:

SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:
Supplies/Materials Needed:

Step-by-step Preparation:

Field Review Evaluation Form Graphics

Submitted by: _____

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

ANSWER KEY:

TIME FRAME:

TAAS:

SCANS:

COMMON EE(s):

Field Review Form Desktop Publishing

Submitted by: _____

Activity Name: _____

YES NO I used this activity.

YES NO I tried or wanted to use this activity but did not because: _____

YES NO I liked the activity. If not, why not: _____

What additions, changes, and/or modifications would you make: _____

STUDENT OUTCOME:

SUMMARY:

SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:
Supplies/Materials Needed:

Step-by-step Preparation:

Field Review Form Desktop Publishing

Submitted by: _____

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

ANSWER KEY:

TIME FRAME:

TAAS:

SCANS:

COMMON EE(s):

Field Review Evaluation Form Telecommunications

Submitted by: _____

Activity Name: _____

YES NO I used this activity.

YES NO I tried or wanted to use this activity but did not because: _____

YES NO I liked the activity. If not, why not: _____

What additions, changes and/or modifications would you make: _____

STUDENT OUTCOME:

SUMMARY:

SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:
Supplies/Materials Needed:

Step-by-step Preparation:

**Field Review Evaluation Form
Telecommunications**

Submitted by: _____

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

ANSWER KEY:

TIME FRAME:

TAAS:

SCANS:

COMMON EE(s):

Field Review Evaluation Form
Social Implications

Submitted by: _____

Activity Name: _____

YES NO I used this activity.

YES NO I tried or wanted to use this activity but did not because: _____

YES NO I liked the activity. If not, why not: _____

What additions, changes, and/or modifications would you make: _____

STUDENT OUTCOME:

SUMMARY:

SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:

Supplies/Materials Needed:

Step-by-step Preparation:

Field Review Evaluation Form
Social Implications

Submitted by: _____

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

ANSWER KEY:

TIME FRAME:

TAAS:

SCANS:

COMMON EE(s):

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B. Additional Information About Learning Behaviors

Typical Right and Left Brain Behaviors
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C. Business Computer Applications Essential Elements and Competencies

Business Computer Applications Essential Elements
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Common Essential Elements
Competencies for Common Essential Elements
Resources for SCANS and SCANS

Computer Operations

Learning Style Field Review Activities

COMPUTER-RELATED CONCEPTS

Competency:

- 1. Identify basic computer related terminology.**

ACTIVITY NAME: Terminology Puzzle

LEARNING STYLE STRATEGY:	Networking
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group, Individual and/or Pairs
STUDENT OUTCOME:	Student will be able to recognize and use terminology regarding computer-related concepts.
SUMMARY:	Terminology will be learned through word type puzzle.
SUGGESTED MODIFICATIONS:	Use terms to create/develop poems, raps or songs or card game.
TEACHER PREPARATION:	
Supplies and Materials Needed:	1. A list of the terminology from Computer Related concepts in BCA Teacher's Guide or from other resources. 2. Graph paper or use a puzzle software creator.
Step-by-step preparations:	1. You prepare or have students prepare crossword puzzle, word search or other type of word puzzle. 2. Students may work individually, in pairs, or in small groups to prepare the puzzles and answer keys. 3. Have students exchange puzzles 4. Keep copies of the puzzles for use later in the year for reviews or for use other years.
ASSESSMENT/EVALUATION:	
CONTRIBUTION TO PORTFOLIO:	
ANSWER KEY:	Generated with the software package.

Learning Style Field Review Activities

TIME FRAME:

2 class hours for preparation and checking and 1/2 hour for completing. May be used as a homework activity or review activity.

SCANS:

TAAS:

Reading and writing

COMMON EE'S:

Learning Style Field Review Activities

COMPUTER-RELATED CONCEPTS

Competency:

2: Outline the events in history pertinent to breakthroughs in data processing.

ACTIVITY NAME: Time-Line

LEARNING STYLE STRATEGY:	Brainstorming and Group Analysis
PERCEPTUAL STRENGTHS:	Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Large group, small group, or individual
STUDENT OUTCOME:	Multicultural awareness computer history while enriching creativity through art and role-play which allows feelings to be expressed.
SUMMARY:	Research and brainstorming techniques will be used to dig out dress for various time periods. Students will work in groups to brainstorm to discover items that would be appropriate. Some groups of students will draw the time-line to show some parts of the visual history.
SUGGESTED MODIFICATIONS:	Conduct a television newscast. Students split up into groups of three to form newscast teams. Each group will give a 5-minute newscast which focuses on a specific computer event in history. You may wish to video tape each of the telecasts and share them with other classes and/or with the computer literacy classes in the school district.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Butcher paper, pencils, pens, and markers.
Step-by-step preparations:	1. Secure library time for research. 2. Brainstorm within groups to determine what items of clothing might depict specific time periods. 3. Use BCA, Computer-Related Activity 5—immediately following this plan to have students work in pairs to determine the dates of the inventions. 4. Have students complete the other three projects. Or, you may wish to assign one to each group.

Learning Style Field Review Activities

ASSESSMENT/EVALUATION:

Evaluated by the instructor as to group participation and carrying out activities to meet the group goal of bringing history to life.

CONTRIBUTION TO PORTFOLIO:

ANSWER KEY:

None

TIME FRAME:

3-4 periods—1 period brainstorming, 1 period of group planning/drawing, and 1 class period for presentation.

SCANS:

TAAS:

History, writing, and reading

COMMON EE'S:

ACTIVITY (Continued)

Project 2

INSTRUCTIONS: Draw a time line illustrating the development of calculating machines and computers in the history of data processing, starting with fingers and ending with microprocessors. Include at least one characteristic to describe each device shown on the time line.

Project 3

INSTRUCTIONS: Prepare a one-page written report about one of the inventions discussed in data processing history, and explain how it aided in the development of computers.

Project 4

INSTRUCTIONS: Select one of the people who made contributions to the computing industry, and write a one-half page report. Make an oral presentation to the class.

ACTIVITY HISTORY OF DATA PROCESSING

Project 1

INSTRUCTIONS: Match the dates shown below to the inventions that correspond to them.

	YEAR		INVENTION
A.	1614	1. _____	Babbage's analytic engine
B.	1890	2. _____	Microprocessor
C.	1946	3. _____	Jacquard's loom
D.	1804	4. _____	UNIVAC I
E.	Late 1940s	5. _____	Leibnitz wheel
F.	1833	6. _____	Napier's bones
G.	1971	7. _____	IBM 360
H.	1642	8. _____	EDSAC and EDVAC
I.	1944	9. _____	Hollerith's punched card
J.	1671	10. _____	Mark I
K.	1951	11. _____	ENIAC
L.	Late 1960s	12. _____	Pascaline

Learning Style Field Review Activities

COMPUTER-RELATED CONCEPTS

Competency:

- 3. Compare the similarities and differences among various computer systems.**

ACTIVITY NAME: Communication Skills-Games

LEARNING STYLE STRATEGY:	Games
PERCEPTUAL STRENGTHS:	Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Teams, small groups, and individuals
STUDENT OUTCOME:	Student will be able to compare the similarities and differences among various computer systems.
SUMMARY:	Students working in groups will develop card games around computer data they collect from research in current periodicals, catalogs, product brochures, and information gathered from other authorities. They will establish the rules for the game and then have other groups test them out.
SUGGESTED MODIFICATIONS:	
TEACHER PREPARATION:	
Supplies and Materials Needed:	Scissors, 3 x 5 cards, pens and pencils and glue. A wide variety of computer periodicals, advertisements, and literature.
Step-by-step preparations:	Students will develop the card or board game. Pictures can be cut out of periodicals and glued onto the cards.
ASSESSMENT/EVALUATION:	
CONTRIBUTION TO PORTFOLIO:	
ANSWER KEY:	
TIME FRAME:	Two periods for development and preparation by students and one period to play the game.
SCANS:	
TAAS:	
COMMON EE'S:	

Learning Style Field Review Activities

COMPUTER-RELATED CONCEPTS

COMPETENCY:

4. Outline the functions of data processing

ACTIVITY NAME: The CPU and its Parts

LEARNING STYLE STRATEGY:	Visual Cue/Mind Webbing
PERCEPTUAL STRENGTHS:	Tactile and Visual
ACTIVITY DYNAMICS:	Large group, small group, individual and pairs
STUDENT OUTCOME:	Student will be able to match data to information in flow chart by drawing and connecting visual solutions.
SUMMARY:	Students will design models using various materials illustrating their understanding of the CPU.
SUGGESTED MODIFICATIONS:	Use tinker toys or have students devise other materials to build model of the CPU.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Styrofoam layer sheets, stick on or pin on letters, and 1/8" - 1/4" dowel rods and pipecleaners for arrows, and letters for labeling. Poster board, pens, and markers.
Step-by-step preparations:	Draw a flow chart or prepare model Label each part Instructor may setup guidelines for the students to follow.
ASSESSMENT/EVALUATION:	Evaluated as to whether students followed the guidelines.
CONTRIBUTION TO PORTFOLIO:	Picture of the project could be placed in portfolio.
ANSWER KEY:	Instructor should make sure that all of the parts of the CPU are illustrated.
TIME FRAME:	After making sure that all materials are available in the classroom use two periods to develop, build, and display.
SCANS:	
TAAS:	
COMMON EE'S:	

Learning Style Field Review Activities

COMPUTER-RELATED CONCEPTS

COMPETENCY:

5. Illustrate the parts of the information processing cycle and explain how each part is interdependent with the cycle.

ACTIVITY NAME: Parts of the Information Processing Cycle

LEARNING STYLE STRATEGY:	Visual Cue Communications, Critical Analysis
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual and Audio
ACTIVITY DYNAMICS:	Individuals and pairs
STUDENT OUTCOME:	Student will be able to illustrate the parts of the information processing cycle and explain how each part is interdependent with the cycle.
SUMMARY:	Draw and label a diagram of the parts of the information processing cycle. Students may use various methods for modeling, making mobiles, etc.
SUGGESTED MODIFICATIONS:	
TEACHER PREPARATION:	
Supplies and Materials Needed:	Paper, colored markers, rulers, pencils. Pattern, thread or string, popsicle sticks, glue, pencils, scissors.
Step-by-step preparations:	Create a pattern to follow. Utilize supplies available or brought by students. Teacher's choice of presentation either written or oral.
ASSESSMENT/EVALUATION:	Evaluated by classmates or other teams.
CONTRIBUTION TO PORTFOLIO:	
ANSWER KEY:	
TIME FRAME:	
SCANS:	
TAAS:	
COMMON EE'S:	

Learning Style Field Review Activities

COMPUTER-RELATED CONCEPTS

COMPETENCY:

- 6. Describe and apply the capabilities of an operating system.**

ACTIVITY NAME: Operating System Games

LEARNING STYLE STRATEGY:

PERCEPTUAL STRENGTHS: Kinesthetic, Tactile, Visual, and Auditory

ACTIVITY DYNAMICS: Individual

STUDENT OUTCOME: Student will be able to describe and apply the capabilities of an operating system.

SUMMARY:

SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:

Supplies and Materials Needed: Poster board, construction paper, scissors, glue, 3/5 cards, markers, large macaroni as board pieces.

Step-by-step preparations: Make game board on the computer system after the manual board is made. Show box.

ASSESSMENT/EVALUATION:

CONTRIBUTION TO PORTFOLIO:

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

COMPUTER-RELATED CONCEPTS

COMPETENCY:

7. Analyze computer-related innovations to increase reliability and productivity.

ACTIVITY NAME: Computer Productivity

LEARNING STYLE STRATEGY:	Critical analysis/research
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Large and small groups
STUDENT OUTCOME:	Students will be able to analyze innovative technical developments that will increase reliability and productivity.
SUMMARY:	Utilize teams or groups to research information on benefits, costs, education, etc. Prepare a video showing the aspects of new innovations in the use of computers. Judge by an oral or written evaluation of video.
SUGGESTED MODIFICATIONS:	Topics can be assigned by teacher.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Blank video tapes, TV and Video player. Set-up room for showing large macaroni as board pieces.
Step-by-step preparations:	Develop a questionnaire/outline for students on information wanted. Use as a check list of how they follow the process.
ASSESSMENT/EVALUATION:	
CONTRIBUTION TO PORTFOLIO:	
ANSWER KEY:	
TIME FRAME:	3 week process of classtime with showing.
SCANS:	
TAAS:	
COMMON EE'S:	

Word Processing

Learning Style Field Review Activities

WORD PROCESSING

Competency: EE 75.87 (e)(5)(B) CC 1 1

ACTIVITY NAME: Bank on Terms

LEARNING STYLE STRATEGY:	Memory Bank
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Individual
STUDENT OUTCOME:	Student will be able to recognize and use basic word processing terminology.
SUMMARY:	Student will research word processing terminology when preparing the memory bank cards with terms and definitions for the Memory Bank. Researching could be done using classroom textbooks, word lists (given to students by teacher), and dictionary to look up definitions.
SUGGESTED MODIFICATIONS:	Teacher could provide terms or terms and definitions to be used on memory bank cards. Students could prepare cards from teacher prepared list of terms. Teacher could prepare memory bank cards or have student prepare them.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Memory Bank 3 X 5 cards cut in half for Memory Bank. List of terms. Reference books (dictionary or textbook).
Step-by-step preparations:	Prepare list of terms or use list in this text. Construct memory bank by directions given in appendix. Prepare memory bank cards or have students prepare them. If students are preparing cards, allow class time to use resource books to define words and then prepare cards. Students are now ready to use memory bank for learning, reviewing, or testing for comprehension of terms.
ASSESSMENT/EVALUATION:	Students could record number of correct answers from memory bank. Students will compose a one-page report using half (20) of the list of terms.
PORTFOLIO:	One-page report could be kept for portfolio.

1-Word Processing

Learning Style Field Review Activities

ANSWER KEY:

See appendix for list of terms and definitions. Use teacher's opinion on evaluating one-page paper.

TIME FRAME:

If teacher prepares memory bank cards, two class periods. If student prepares cards, three class periods.

SCANS:**TAAS:****COMMON EE'S:**

CEE 75.87 2C

Learning Style Field Review Activities

WORD PROCESSING

Competencies: EE 75.87 (e)(2)A CC 2 2

ACTIVITY NAME: Find Your Match

LEARNING STYLE STRATEGY:	Visual Que
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Pairs
STUDENT OUTCOME:	By using pairs, students will learn proofreader's marks visually and verify their usage through finding symbol that matches meaning.
SUMMARY:	Students will each have a card with either the proofreader's symbol or the meaning on it. They will locate another student in the classroom who has either the matching symbol or meaning on their card. (Symbol matches with meaning, not symbol with symbol.) When they find each other, they will "find their match".
SUGGESTED MODIFICATIONS:	1. Students could prepare cards using list found in this text or the Business Professionals of America Competitive Events Guide. 2. Teacher could prepare cards for students. 3. Teacher could let students draw cards as they enter the classroom or could have students pick up several cards to be matched. 4. Students could have a set of cards and see how many they could match. They could be timed to see how many "matches" they can find in a specific time period. Points or prizes could be awarded based on number "matched" in specified time. 5. This could be an introductory lesson giving a prize for each correct match or to only the first correct match. If this is an introductory lesson students could use class reference books to verify their "match". 6. This could be used as a reinforcement activity giving one or more points for each correct match. Points could be cashed in for prizes or used as a grade.

Learning Style Field Review Activities

TEACHER PREPARATION:

Supplies and Materials Needed:

Poster Board cut in fourths to use as cards with proofreader's symbols and meanings on them. Washable markers used to label cards. If cards are laminated, they could be used repeatedly. Reference books to verify proofreader's marks. Timer, stopwatch, or clock to time students. Method of tracking points: scorekeeper or colored pieces of paper to be handed to pair that "match". If using prizes have display of them. Prizes could be coupons redeemed for points on a test, five minutes of free class time, a free assignment, free movie passes, etc. Prizes do not have to be something that cost money. Could reward prize to person who makes the most "matches".

Step-By-Step Preparations:

Prepare list of proofreader's marks or use list in this text or use list found in Business Professionals of America Competitive Events Guidelines. Prepare cards teacher could prepare ahead of time or have students prepare them in class using classroom reference books. Cut poster board in fourths placing a proofreader's symbol or matching meaning on each fourth. You may use washable markers to write on the poster board. Laminate completed poster board to enable you to use them repeatedly. Decide whether you want students to "match" as many as they can or only make one "match". Two students with the same symbol could be "matched" with one meaning. If you choose to reward with prizes, collect them. If you choose not to reward with prizes, determine method of awarding points. As students enter class the day of the "match", distribute cards to be matched. Teacher would have to verify and issue reward. Allow students an amount of time depending on the length of your class to "Find Their Match". Timing increases competition.

ASSESSMENT/EVALUATION:

Students could be evaluated by number of correct "matches" or by how fast they made their "match". Could be awarded points or prizes as mentioned above.

PORTFOLIO:

Not a portfolio activity

ANSWER KEY:

Refer to list of proofreader's marks that you used in preparing the cards for matching.

TIME FRAME:

If teacher prepares cards ahead of time - one class period. If student prepares cards, allow two class periods

Learning Style Field Review Activities

SCANS:

TAAS:

COMMON EE'S:

CEE 75.87 2C

Learning Style Field Review Activities

WORD PROCESSING

Competency: EE 75.87 (e)(2)(A)CC 2 1

ACTIVITY NAME: Let's Take A Walking Tour

LEARNING STYLE STRATEGY:	Linear Outline and Role-Playing
PERCEPTUAL STRENGTHS:	Kinesthetic, Visual, and Auditory
ACTIVITY DYNAMICS:	Group
STUDENT OUTCOME:	Student will visually experience the progress of a document from its creation to completion and distribution.
SUMMARY:	Students will form a human flow chart representing the different stages of the word processing cycle. One student will act as the document and will walk through the document cycle. The document cycle includes: input (document creation), processing, storage, revision, storage, output, and distribution. As the student walks through this process the other students will role play what is happening to the document as it enters each portion of the cycle. Prior to the beginning of the "walking tour" give one of the stages a problem they will share as the document reaches them. Ask students to solve this problem before continuing the document cycle.
SUGGESTED MODIFICATIONS:	Class could be divided into groups of eight so each group could have opportunity to solve a different problem as others in class observe. This would provide opportunity to solve a variety of problems they might actually encounter in the word processing cycle. Sample Problem: In the storage phase there is a surge of electricity due to an electrical storm and revisions are lost before they are stored. Teacher could turn lights off and on to show power surge. The students representing the various stages of the document cycle could be identified by labeling their place, by them holding up a card with their stage on it, or by wearing a placard.
TEACHER PREPARATION:	
Supplies/materials needed:	Document Cycle (example found in this text)Labels or placards for each part of the document process (students could make these)Markers to label cards 3 X 5 cards to be

Learning Style Field Review Activities

	used to record problem to be solved. Students to be the human flow chart. List of problems to be encountered in the process.
Step-by-step preparation:	Prepare list of problems to be solved in this activity. Record a problem on a 3 X 5 card to be handed to person in a particular position of the cycle. Teacher should choose position in cycle to receive problem. Divide class into several groups of at least eight students per group. Teacher can assign parts of the cycle to each student or student could choose or draw for his/her part in the role play. Teacher could walk students through one role play to demonstrate how process works. Each group of eight could perform for remainder of class so that entire class has opportunity to see how numerous problems can be solved or each group can perform cycle within their group.
ASSESSMENT/EVALUATION:	Teacher evaluates problem-solving ability of group by determining effectiveness of solution. Teacher evaluates students' comprehension of word processing cycle by observing "Walking Tour".
PORTFOLIO:	Not a portfolio activity
ANSWER KEY:	Varies according to problem to be solved.
TIME FRAME:	One or two class periods.
SCANS:	
TAAS:	
COMMON EE'S:	CEE 75.87 1A, 2C, 2E

Learning Style Field Review Activities

WORD PROCESSING

Competencies: EE 75.87 (e)(2)(C)(5)(B) CC 1 2

ACTIVITY NAME: Interview

LEARNING STYLE STRATEGY:	Group Analysis and Critical Analysis
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Group and individual
STUDENT OUTCOME:	Students will experience working in groups and individually to create and complete a project which incorporates interviewing skills, drawing conclusions, and composing a paper.
SUMMARY:	Divide your class into groups of four or five students per group. Each group will interview a business person, an education person, a person in city, county, or state government, and a neighbor who has a computer, to see how people from these various areas have utilized computerized word processing in their business and/or personal lives. Within the group, have students choose which person they prefer to interview. Prior to interviewing, have each group of students create interview questions which they will ask their designated person. After each group member has interviewed their person individually, they will comeback together to share their information and draw their conclusions. In the process of interviewing they may take notes in longhand or use a tape recorder. From their notes and the group conclusion, they should individually prepare a two page hand-written paper. The notes and hand-written paper from this activity will be saved and used again in activities #7 and #9. Do not allow the students to prepare the paper at the computer because the students will need to experience composing in longhand and composing at the computer in later activities. This will give them first-hand experience in the utilization of computerized word processing.
SUGGESTED MODIFICATIONS:	Teacher could require students to tape record interview and then transcribe their notes. Teacher could supply students with list of interview questions. Teacher should approve list of questions compiled by students before allowing them to interview community people. This activity provides the

Learning Style Field Review Activities

opportunity for you to ask the journalism teacher at your school to assist your students in interview techniques and questions.

TEACHER PREPARATION:

Supplies/Material Needed:

Blank tapes, tape recorder, list of interview questions, instructions in manner of interviewing community people, for example: appropriate dress, necessity of making an appointment, how to set up an appointment, and appropriate communication skills for this project.

Step-By-Step Preparations:

Divide class into groups of four or five students per group. Have students select person they want to interview. Teacher should explain or have students research proper communication skills, interview techniques, and appropriate way to schedule appointment with person student is interviewing. Each group should compose list of questions to ask person being interviewed and have this list approved by the teacher. Students conduct interviews and bring this information back to their group. It is necessary to obtain the title and mailing address of the person each student is interviewing. This information will be used in a future activity. Students are now ready to share information within their group and draw conclusions about the value of computerized word processing. After sharing information and drawing conclusions, students are ready to compose their two page hand-written paper. Save notes and hand-written paper to be used in future activities.

ASSESSMENT/EVALUATION:

Since this project involves both individual work and group work, it is necessary to award both an individual and a group grade. It would also be appropriate to award a grade on the hand-written paper each student prepares. The individual grade should be based on student's conduct in arranging the interview, conducting the interview, and returning to the group with a significant contribution. The group grade should be based on each student's interaction within the group. The hand-written paper should be evaluated by the teacher for both content and written communication skills.

PORTFOLIO:

Hand-written paper could be a portfolio activity. Student could select either this one or one from future activities for which this one is the basis.

ANSWER KEY:

Teacher's opinion

Learning Style Field Review Activities

TIME FRAME:

Three to four class periods for group work and paper composition. Interview time is not included in this as students will do this after school hours.

SCANS:

TAAS:

COMMON EE'S:

CEE 75.87 2C, E, F, H, I

Learning Style Field Review Activities

WORD PROCESSING

Competency: EE 75.87 (e)(2)(B)CC 2 3, 4, 5

ACTIVITY NAME: Research and Present

LEARNING STYLE STRATEGY:	Team Learning
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Group
STUDENT OUTCOME:	Students will be familiar with the formatting features of the software they are using and will be able to quickly recall the appropriate command for each formatting feature.
SUMMARY:	Divide class into equal number of teams according to number of computers in your room. You could have teams of only three or four members. Have one student seated at computer with other team members standing behind the seated member. Teacher calls out formatting feature while seated student keys in the correct command. Entire team can determine correct command. Another team member records the corresponding command on paper as it is being keyed in. Then rotate members position so each person on team has opportunity to be seated at computer and also to be the recorder. One point is given for each correct command. The team with the most points wins. Prize could be free assignment, points on a test, free time during class, or a food reward.
SUGGESTED MODIFICATIONS:	A student could call out formatting features rather than the teacher. This would free the teacher to monitor accuracy of recorder and data entry people. Students will have researched their particular software and be familiar with its formatting features prior to beginning to play this game. If you have a variety of software available, each team could be using a different software.
TEACHER PREPARATION:	
Supplies/Materials Needed:	Software List of software features found in this text. Corresponding commands for your particular software package. Paper, pen, and clipboard for students to record corresponding commands.

Learning Style Field Review Activities

Step-By-Step Preparations:

Students will research their software and its formatting functions prior to playing this game. Determine list of software features you will use. Select software to be used. Have paper, pens, and clipboards (a writing surface) for recorder. Divide class into groups of three to five students per team. Have one student sit at computer with others standing behind him/her where they can see the computer screen. Have group select person to record. Teacher or student calls out formatting feature. Seated student keys in what team tells him/her to as the recorder records the corresponding command. Teacher awards point for each correct command. Students rotate positions until all members have been both the data entry person and the recorder. Team with most points wins.

ASSESSMENT/EVALUATION:

Teacher could grade recorder's paper or could award a first, second, third place, etc. with group grade based on place they won. For example: first place could be equal to 95 points, second place is equal to 85 points, etc. with entire group receiving same grade. This grade could be recorded in your grade book. This game could be played without recording any grade in grade book.

PORTFOLIO:

Not a portfolio activity

ANSWER KEY:

Varies according to software used

TIME FRAME:

One class period

SOFTWARE FEATURES:

Reformatting paragraphs (may be automatic) Setting text tab stops. Setting decimal tab stops. Deleting tab stops. Using search. Using replace. Display hidden characters. Selecting a block of text. Copying a selected block. Moving a selected block. Deleting a selected block. Writing a block from a document to its own file. Reading a file from a disk into a document on the screen using windows. Changing the left margin. Changing the right margin. Changing the top margin. Changing the bottom margin. Adding headers. Adding footers. Centering text between left and right margins. Centering text between top and bottom margins. Justifying text. Changing the line spacing for the entire document. Indenting paragraphs. Using hanging indents. Boldfacing characters. Underlining characters. Controlling page breaks. Changing lines per page. Invoking the spell checker. Creating columns. Creating macros. Invoking macros. Setting up a form document for merging. Setting up a file to merge into a form document

Learning Style Field Review Activities

Software Features were taken from current BCA curriculum.

SCANS:

TAAS:

COMMON EE'S:

CEE 75.87 1A, C, D

Learning Style Field Review Activities

WORD PROCESSING

Competency: CEE EE 75.87 (e)(2)(A), (5)(B) CC 2 6

ACTIVITY NAME: The Human Letter

LEARNING STYLE STRATEGY:	A Linear Outlining, Mnemonic, and Group Analysis
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Group
STUDENT OUTCOME:	Student will be able to identify parts of letter including placement of each part. They will also be able to identify both open and mixed punctuation.
SUMMARY:	Divide the class into groups of nine to twelve. Using the reference books in the classroom, have the students research various letter styles and parts in order to prepare a rap, a song, or a story, using the different parts of a letter, different letter styles, and both open and mixed punctuation. Then have members of the group represent the different parts of a business letter and actually move to the appropriate formatting place as the rap, song, or story is given. It might be helpful if students wear placards or hold up posterboard identifying their part. All remaining students will be in bleachers or an elevated place where they can see the actual placement of the different letter styles and parts.
SUGGESTED MODIFICATIONS:	Could compose rap, song, or story at the computer
TEACHER PREPARATION:	
Supplies/Materials Needed:	Reference books that contain letter styles Poster board or placards List of letter parts (in this text).
Step-by-step Preparation:	Divide the class into groups of nine to twelve students. Have students prepare a rap, a song, or a story describing the various letter styles, parts, and punctuation. Classroom reference books may be used in the preparation process. Have students prepare signs or placards, to label the part of the letter they represent. As the rap, song, or story is given, have students move to various places to represent different letter formats. Students not involved in this presentation should be in the bleachers or other elevated place in order to better see the placement of different letter parts.

Learning Style Field Review Activities

ASSESSMENT/EVALUATION:	Teacher could evaluate group participation, creativity and accuracy of presentation.
PORTFOLIO:	Not a portfolio activity
ANSWER KEY:	Teacher's observation
TIME FRAME:	One to two 55 minute class periods to prepare and one to two to perform depending on how many groups you have.
LETTER PARTS:	Date Inside Address, Attention Line, Salutation, Subject line, Body, Complimentary Close, Signature, Typed Name, Title, Reference Initials, Enclosure, Copy, notation
LETTER STYLES:	Block Blocked with indented paragraphs Modified Block with open punctuation Modified Block with mixed punctuation Modified Block with block paragraphs AMS Simplified.
SCANS:	
TAAS:	
COMMON EE'S:	

Learning Style Field Review Activities

WORD PROCESSING

Competency: EE 75.87 (e)(5)(B) CC 2 2, 4, 5, 6

ACTIVITY NAME: Thank You Letter

LEARNING STYLE STRATEGY:	Continuation of Critical Analysis
PERCEPTUAL STRENGTHS:	Tactile/Visual
ACTIVITY DYNAMICS:	Individual
STUDENT OUTCOME:	Student will be able to compose and format a thank you letter.
SUMMARY:	Student will compose a thank you letter to the person or persons who they interviewed. They will key in the letter in each of the three main letter styles and print them after teacher has approved his/her letter. Then the student will select one of these to send to the person or persons interviewed by them. An envelope will be prepared and the letter mailed.
SUGGESTED MODIFICATIONS:	Teacher could approve only selected letter and not letter on screen before printing. Teacher could explain composition and format of thank you letter or students could research this and share findings with class.
TEACHER PREPARATION:	
Supplies/Material Needed:	Bond Paper, Envelopes, Examples of thank you letters from reference books in library or classroom. Example of correct preparation of envelope. Example of correct insertion of letter into envelope
Step-By-Step Preparation:	Teacher can explain and show examples of thank you letters or students could research examples of thank you letters and present to class. Student composes letter at computer. Teacher could approve or evaluate letter at this stage or could evaluate after printing. Student inputs letter in three different letter styles. Prints all three styles. Selects one of the three to send to person they interviewed. Teacher or students explain correct preparation of envelope. Student prepares envelope. Teacher or students explain the correct insertion of letter into envelope. Teacher approves letter to be sent.

Learning Style Field Review Activities

	Student places letter in envelope and sends to person interviewed.
ASSESSMENT/EVALUATION:	Teacher approves each student's letter before printing the letter. Teacher could evaluate only letter selected and not all three copies. Letter should be evaluated for content and format.
PORTFOLIO:	Copy of letter could be placed in portfolio.
ANSWER KEY:	Teacher's evaluation
TIME FRAME:	Two fifty-five minute class periods
SCANS:	
TAAS:	
COMMON EE'S:	CEE 75.87 2C, F

Learning Style Field Review Activities

WORD PROCESSING

Competencies: CC 2 6

ACTIVITY NAME: Picture Outline

LEARNING STYLE STRATEGY:	Visual Que
PERCEPTUAL STRENGTHS:	Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Individual
STUDENT OUTCOME:	Student will be able to identify the various parts of a letter.
SUMMARY:	Research has shown that the brain is better able to recall information written within a picture outline. Color also makes the outline easier to recall. For this activity, prepare pictures (those without detail) on colored paper. A primary grade coloring book is an excellent resource because the picture outlines are large and have very little detail. This will allow the student to record the various parts of a letter within the lines of the drawing. Some students will want to use markers to color their drawing. This reinforces their visual que. When asked to recall the parts of a letter, students will visualize the picture they have labeled and colored and will be able to quickly recall the parts of a letter.
SUGGESTED MODIFICATIONS:	Teacher could prepare their own drawings rather than use a primary grade coloring book. Students could make their own line drawings. This could be an introductory activity or could serve as a review or reinforcement activity. Students could work in partners to review parts of a letter by one calling out the parts and the other telling where they would be found in a letter format. The computer could be used to position the letter parts.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Primary coloring books (line drawings that form pictures), washable felt tip markers, colored paper and reference books containing parts of letters.
Step-by-step Preparations:	Teacher will run off picture outlines on colored paper prior to class or have students draw their own pictures. Teacher will explain parts of a letter or have students research this with classroom reference books and then share finding with

Learning Style Field Review Activities

classmates. Use this information to label their picture. Color their picture if they want to. Could now pair up with classmate and review letter parts by one student calling out letter parts and other student placing them in the correct formatting position. The computer could be used for this.

ASSESSMENT/EVALUATION:

Teacher will evaluate for parts of letter. Could include creativity in evaluation

PORTFOLIO:

Not a portfolio activity

ANSWER KEY:

Teacher discretion

TIME FRAME:

One class period

SCANS:

TAAS:

COMMON EE'S:

CEE (e)(5)(B)

Learning Style Field Review Activities

WORD PROCESSING

Competencies: EE (e)(2)(A)(C) (5)(B) CC 1 2, 52 2, 3, 4, 5, 6

ACTIVITY NAME: Report

LEARNING STYLE STRATEGY V:	Continuation of Critical Analysis
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Individual
STUDENT OUTCOME:	Student will understand the benefits of using computerized equipment to prepare a report from first-hand experience.
SUMMARY:	Using the information from Activity #4, have students prepare a two-page report. This report will be composed at their computer. Prepare this report using notes and the previously prepared two-page paper written in longhand concerning their personal interview with a community person. Prepare the report in both formal and informal report style. Have the student include in this report the benefits he/she has experienced in using computerized word processing equipment as opposed to the longhand preparation used in Activity #4. Also, have the student decide which report form they like the best and give three reasons for their choice.
SUGGESTED MODIFICATIONS:	Teacher could have student to use either the informal or the formal report style rather than having them prepare both. Student could select the style they prefer and turn in that one for evaluation. Students could research formal and informal report styles
TEACHER PREPARATION:	
Supplies and Materials Needed:	Computer, transcriber (If notes are on tape) Notes or tape from interview in Activity #4 Paper written in longhand from Activity #4 Examples of formal and informal report styles
Step-by-step Preparation:	Compare informal and formal report styles. Have students bring notes and paper from interview in Activity #4 to class. Have students prepare another two-page paper at the computer combining previous interview paper with the benefits they see from using computerized word processing. As they use the computer, they will see they need more

Learning Style Field Review Activities

information added to previous report to fill two pages. Have students prepare this same report in both the informal and the formal report style. Have them select the style they prefer and give three reasons why they prefer this one.

ASSESSMENT/EVALUATION:

Evaluate correct report format. Evaluate content for sentence structure and grammar. Assess whether student formed an opinion about computerized word processing.

PORTFOLIO:

Student could select report format to place in portfolio.

ANSWER KEY:

Teacher's discretion

TIME FRAME

Two class periods.

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

WORD PROCESSING

Competencies: EE 75.87 (e)(2)(A), (5)(B) CC 2 2, 3, 4, 5, 6

ACTIVITY NAME: Memo

LEARNING STYLE STRATEGY:	Group Analysis and Critical Analysis
PERCEPTUAL STRENGTHS:	Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small group of two or three students
STUDENT OUTCOME:	Student will be able to work in a group setting to compose and format a memorandum.
SUMMARY:	Have students work in groups of two or three to prepare a memo in correct memo form about being successful in this class. Ask students to compose this memo at their computer. Each group member will participate in a different function within their group. One could be the data entry clerk, with the other being the editing expert, and the third one the supervisor, etc. Explain to your students that you will be giving this memo to the students enrolled in this class next year.
SUGGESTED MODIFICATIONS:	Could be done individually rather than in a small group. Memo could be describing this class rather than being successful in this class. Then ask students to share memo with friends they feel would benefit from being in this class.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Computer Example of memo format Sense of humor.
Step-By-Step Preparation:	Have students divide into groups of two or three. Have each group member select their function (data entry clerk, editor, supervisor). Students will compose memo at computer (using correct memo form) to next year's students about being successful in this class. Print memo and bring to you for evaluation. Share memo with students enrolled in this class next year.
ASSESSMENT/EVALUATION:	Evaluate format Evaluate writing skills. Evaluate content, but with a sense of humor.
PORTFOLIO:	Place in portfolio

Learning Style Field Review Activities

ANSWER KEY:

Teacher's discretion

TIME FRAME:

One class period.

SCANS:

TAAS:

COMMON EE'S:

CEE 75.87 (1)A, C, D, (2)I, J, R and (5)C, D, F

Spreadsheets

Learning Styles Field Review

SPREADSHEETS

COMPETENCIES:

- 1.2 Describe the structure of electronic spreadsheets and the purpose for which they are used.
- 1.3 Identify capabilities of electronic spreadsheets.

ACTIVITY NAME: Human Spreadsheet

LEARNING STYLE STRATEGY:

Group Role-Playing

PERCEPTUAL STRENGTHS:

Kinesthetic, Tactile, Visual, Auditory

ACTIVITY DYNAMICS:

Large Group-Small group

STUDENT OUTCOME:

The student will learn the concept of the spreadsheet.

SUMMARY:

The Human Spreadsheet will be used to explain how the concept of the spreadsheet is set up using the desks and the students as the model.

SUGGESTED MODIFICATIONS:

Instead of using the classroom for the human spreadsheet, you may wish to do this on bleachers so that all facets of the spreadsheet could easily be seen. Small groups could be utilized to set up the rest of the groups in the spreadsheet format. If several different problems were utilized, then each group could be in charge of the setup and actually observe and verify the spreadsheet.

TEACHER PREPARATION:

Supplies/Materials Needed:

3 sets of colored placards (half sheet card boards) containing the designated category and information for building a spreadsheet.

Step-by-step Preparation:

1. Have the students create a wall mural of an oversized spreadsheet using the placards with the spreadsheet categories and information with labels pointing and identifying each part of the spreadsheet. This could be used at the beginning of the spreadsheet section.
2. Have a guest speaker such as an Accountant (CPA), Statistician, or some-one else that would be inclined to use spreadsheet software in their

Learning Styles Field Review

daily activities demonstrate and discuss how they use spreadsheets.

3. Set up the classroom as a spreadsheet. Place the chairs in rows and columns.
4. Use placards to designate column letters and row numbers. Copy the sample sheets on different colored paper to indicate a row or column. You could even indicate the individual cells—A-1, B-2, etc. (The blank Rows and/or Columns forms may be replicated and the cell names places on them.
5. Prepare another set of placards with one of the following categories on each half sheet: Salesperson, Hours Worked, Pay Rate, Gross Pay, Salary Deductions, Net Pay.

(This portion of this activity could be done after students have worked with the spreadsheets for a while and after they have a concept of what a spreadsheet can do.)

Pass out a category to some students and have them arrange themselves in the chairs that have been setup as a spreadsheet.

6. Prepare another set of placards with Names, Number of Hours Worked, an amount for Rate of Pay, Gross pays, Different Salary Deductions, and Net Pays and pass them out to your students and have them arrange themselves on the spreadsheet according to the categories set up in columns or rows. (You will have to prepare this set or have the students do them.)

(This activity could be done in combination with #6.)

7. Use the sample sheets for the categories of Ask the students to manually find: MAX, MIN and COUNT.

- the MAXimum Net Pay out of all the entries,
- find the MINimum Amount Net Pay out of all of the entries, and
- the number of salespeople there were in the stack.

This should be a very effective method of showing the time-saving features of MAX, MIN, and COUNT functions.

Learning Styles,Field Review

8. Provide the student the following example of an IF/THEN statement.

If you get the lawn mowed by noon today, you may then go to the football game, otherwise you have to stay home tonight.

Then have them write two of their own IF/THEN statements.

9. Next demonstrate how these could be written as formulas for use in the spreadsheet. For example:

=IF (MOW<= 12:00, GAME, HOME)

The students can then convert their statements into formulas.

This should be an easy transition into writing IF/THEN statements in the spreadsheet.

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

None

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

3-Spreadsheet

COLUMN A

COLUMN B

COLUMN C

COLUMN D

COLUMN

COLUMN

ROW 1

ROW 2

ROW 3

ROW 4

ROW 5

ROW 6

ROW

ROW

SALESPERSON

**HOURS
WORKED**

PAY RATE

GROSS PAY

SALARY DEDUCTIONS

NET PAY

NAMES

**NO. OF HOURS
WORKED**

RATE OF PAY

FICA

INSURANCE

FED TAX

OASDI

MAX

MIN

COUNT

Learning Styles Field Review

SPREADSHEETS

COMPETENCY:

- 1.4 Contrast and compare electronic spreadsheet software packages.

ACTIVITY NAME: Compare and Contrast Spreadsheets Software Packages

LEARNING STYLE STRATEGY:	Group Analysis
PERCEPTUAL STRENGTHS:	Tactile, Visual, Auditory
ACTIVITY DYNAMICS:	Small Group
STUDENT OUTCOME:	The student will be able to differentiate between the several spreadsheets software packages to determine which software packages would best fit the needs of the project.
SUGGESTED MODIFICATIONS:	Using actual spreadsheet software would ideal however, it may not be possible. An alternative would be to have students collect information on various software packages from magazine advertisements and reviews, brochures, and product bulletins.
SUMMARY:	After some research, the students will evaluate the pros and cons of several spreadsheets.
TEACHER PREPARATION:	Obtain several spreadsheet software programs with documentation for the students to review.
Step-by-step Preparations:	1. After doing some research, divide the students into small groups of 3 to 5 members. Designate a recorder. 2. Have students compare various spreadsheet software packages such as: <i>Microsoft Works</i>, <i>LOTUS</i> and <i>First Choice-Spreadsheet</i> to determine the pros and cons of each program. 3. Have students prepare a report in writing and to be presented orally with facts, figures and graphics indicating which software they would choose if purchasing for an office and why they selected one over the other.

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MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

None

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Styles Field Review

SPREADSHEET

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.
- 2.2 Enter and manipulate data.
- 2.3 Write and use a simple macro.

ACTIVITY NAME: Personal Budget

LEARNING STYLE STRATEGY:	Group Analysis
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, Auditory
ACTIVITY DYNAMICS:	Large Group-Small Group-Individual
STUDENT OUTCOME:	The student will be able to set up and utilize a budget on a spreadsheet for forecasting.
SUMMARY:	The budget will be used to inform the student about the use of money and its value using a spreadsheet for forecasting. This will be accomplished through going through the process of finding a job, writing a résumé locating an apartment, and setting up a budget.
SUGGESTED MODIFICATIONS:	Have the students work on family budgets or couple budgets. Have a database of jobs prepared by the students using qualifications, information about the company, requirements, etc. as fields. Utilize the WP activity to write a thank-you note.
TEACHER PREPARATIONS:	
Supplies and Materials	1. Bring several newspapers for the students to look over the want ads. 2. Secure several different samples of résumés, application forms, and letters of application. 3. Overhead projector to view and fill out the application form together.
Step-by-step Preparations	1. Present student objectives. 2. Present different examples of resume, explaining why prepare a résumé and the different types of information contained on the résumé.

Learning Styles Field Review

3. Brainstorm on what the students can put on their résumé.
4. Have students prepare a résumé.
5. Prepare or have students prepare a bulletin board of samples of application forms, résumés, and other materials utilized for applying for a job.
6. Hand out a blank application form to each student and use the overhead to fill out the application together.
7. Show different types of application letters.
8. Invite a person from an Employment Placement Service come and speak to the class about locating the right job and to discuss sources to find jobs.
9. Bring newspapers for the students to look for jobs.
10. Have students write a letter of application for a specific position.
11. Explain the interview process, questions that may be asked, how to dress, etc.
12. Set up mock interviews for the students to get practice in interviewing techniques. Invite a counselor or principal to serve as interviewer..
13. Brainstorm on what a budget is and its components. Remind students that the purpose of a budget is to help people and businesses, plan expenses for a given period of time. Then, the actual expenses at the end of the period can be compared with the planned expenses to determine how closely planned and actual amounts are in agreement.
14. Invite a member of an Apartment Locator Service to come and explain the service to the class.
15. Research shopping in the classroom. Group comparison. Shop for Apartments, furniture, different kinds of insurance, banks, groceries, etc.
16. Assign each group with an area to research and have them prepare a visual chart and a brief showing what they discovered.
17. Have students prepare a budget as a group, then as couples, and as individuals.
18. Prepare some extra expenses that come up from time to time as emergency expenses to be drawn out by the students once a week. For example: doctor's office call, broken window, car accident, speeding ticket, etc.

Learning Styles Field Review

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate the résumé and letter of application on design, correctness, and neatness. Evaluate the application on neatness and completeness. Evaluate the budget prepared on a spreadsheet on accuracy, use of formulas, and closeness to reality.

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Styles Field Review

Students' Instructions

You have just graduated from high school and have decided that you are going to live on your own.

1. The first thing that you have to do is to go through the job hunting process—remembering you only have a high school education and you may not qualify for some jobs. Select a position that you feel you are qualified for from the want ad section of the newspaper. Prepare a résumé, fill out an application form, write a letter of application and participate in a mock interview for the job.
2. Finding an apartment is second on your list. Prepare a list of priorities you require in securing an apartment. For example: cost, location, washer/dryer, furnished, etc. Use the newspaper ads to find apartments that closely meet your requirements and either call or visit them to see if what they are advertising is what you are getting..
3. Third on your list is to secure transportation. You do not have a car but if you get one, you have to make the downpayment and make the payments on it. Mom and Dad will sign the note but will not make the payments. If you buy a car, remember to budget for insurance. What other transportation alternatives might be considered.
4. Prepare a monthly budget for the next six months basing it on the salary that you will be receiving on your job. Make any adjustments you need to make on your apartment and transportation selection and justify it.

Life does not always run the way we want it to. Be prepared for the worst and hope for the best. Do you have a contingency plan if things don't work the way you want them too. Keep these thoughts in mind and be ready to react to any situation that is thrown at you.

Learning Styles Field Review

SPREADSHEET

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.
- 2.4 Demonstrate some advanced mathematical functions.
- 2.5 Print and graph the results and save the template.

ACTIVITY NAME: Administrative Assistant

LEARNING STYLE STRATEGY:

Simulation

PERCEPTUAL STRENGTHS:

Tactile, Visual, Auditory

ACTIVITY DYNAMICS:

STUDENT OUTCOME:

The student will design their own spreadsheet with appropriate heading and learn how to use formulas for addition.

SUMMARY:

The student will learn how to set up their own spreadsheet design in doing a particular job for McDonald's.

TEACHER PREPARATIONS:

Explain the different types of formulas that can be utilized including functions.

1. Have the students fill out the spreadsheet utilizing:
 - Column A for the Time.
 - Columns B - D for the registers
 - Column E for the total using one of two formulas:
 - (1) $+b7+c7+d7$
 - (2) $@sum(b7..D7)$
2. Once the total formula has been typed in, use the copy command to copy the formula down to cell E20.
3. Total Column B. Formula is $@sum(b7..b23)$. Use the copy command to total the other columns.

Learning Styles Field Review

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate on the design and use of correct formulas.

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Styles Field Review

Students' Instructions

You are an Administrative Assistant at McDonald's, Inc. Your responsibilities include keeping an accurate count of all the money for making deposits. Design your own spreadsheet complete with a title and heading to cover the data listed below:

McDonald's Inc.
Your street
Your City, USA

Daily Cash Flow prepared by (your name)
Date

Time	Register 1	Register 2	Register 3	Total
7:00 am	200	300	150	
8:00 am	500	400	200	
9:00 am	500	500	500	
10:00 am	600	700	300	
11:00 am	1000	120	1300	
12:00 am	1200	150	800	
1:00 pm	800	900	950	
2:00 pm	700	600	500	
3:00 pm	400	300	200	
4:00 pm	600	300	400	
5:00 pm	700	900	1000	
6:00 pm	800	800	800	
7:00 pm	900	900	700	
8:00 pm	700	500	300	
9:00 pm	800	700	150	
10:00 pm	350	250	75	
11:00 pm	400	275	225	

Learning Styles Field Review

SUGGESTED SOLUTION

McDonald's, Inc.
900 Wise Street
Dallas, TX

Time	Register 1	Register 2	Register 3	Total
7:00 am	200	300	150	650
8:00 am	500	400	200	1100
9:00 am	500	500	500	1500
10:00 am	600	700	300	1600
11:00 am	1000	1200	1300	3500
12:00 pm	1200	1500	800	3500
1:00 pm	800	900	950	2650
2:00 pm	700	600	500	1800
3:00 pm	400	300	200	900
4:00 pm	600	300	400	1300
5:00 pm	700	900	1000	2600
6:00 pm	800	800	800	2400
7:00 pm	900	900	700	2500
8:00 pm	700	500	300	1500
9:00 pm	800	700	150	1650
10:00 pm	350	250	75	675
11:00 pm	400	275	225	900
TOTAL	11150	11025	8550	30725

Learning Styles Field Review

SPREADSHEET

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.
- 2.2 Enter and manipulate data.
- 2.4 Demonstrate some advanced mathematical functions.

ACTIVITY NAME: Welcome to the Real World!

LEARNING STYLE STRATEGY:	Simulation & Role Playing
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, Auditory
ACTIVITY DYNAMICS:	Simulation
STUDENT OUTCOME:	The student will learn how quality control is used in a real world situation by using a spreadsheet and recalculations.
SUMMARY:	This activity will give the student the opportunity to design their own spreadsheet and understand that problems can be worked out on a spreadsheet.
SUGGESTED MODIFICATIONS:	Have students role play being the quality control assistant by going around to each students desk and counting the number of different colors.
TEACHER PREPARATION:	1. Buy a small package of M & M's for each one of your students. 2. Pass out the packages, noting that each package weighs the same. 3. Ask the following questions: <i>If every bag weighs the same, does each bag have the same amount of M & M candies?</i> <i>Does each bag contains the same amount of each color.</i> 4. Have each student create a spreadsheet with the names of the students participating in Column A and the colors of the M & M candies in Column B, C, D. 5. Have one of your students go around and call out the correct number of each color out to the class while the

Learning Styles Field Review

rest of the class keys in the amounts by the corresponding students name.

6. Total the row of each student to see how many M & M candies each student received in their bag.
7. Total the columns to see how many of each color the class has as a whole.
8. Find the MAX and MIN of each person.
9. From the total that each student has in their bag of M & M candies, figure the percentage of the colors that each person has received in their package.
10. From the totals, percentages, and other calculations, you can do "What IF" questions.

For example:

1. What if an individual has $1/2$ of an M & M, is it counted?
2. What if a person has more red and has less total candies than the average package. Does the Red weigh more? Does any color weigh more than the others? If not, then why the variation in the number in each package?
3. What if, the percentages of each color were the same in each package, would the total be the same for each package?
4. What if there was exactly the same amount of each color in the package, would it still weigh the same?
5. What if the average package had all one color put into it, would it still weigh the same?

The answers will vary according to the number of packages given and the number of each color that is in a package.

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate the design of the spreadsheet as well as the accuracy.

Learning Styles Field Review

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Styles Field Review

STUDENTS' INSTRUCTIONS

You are a Quality Assurance Assistant at MARS, Incorporated. It is your responsibility to oversee the general quality of the M & M products your company manufactures. To determine the quality and consistency of your product, you and other Quality Assurance Assistants in your department are sampling M & M Plain candy. Research has shown that customers prefer certain colors of M & M candy, and the degree of their satisfaction with the product can be directly linked to the color mixture found in each package. Also, customers prefer to have a uniform sized candy so they feel that they are receiving their money's worth.

Your company has recently purchased spreadsheet software for your accounting purposes. As a bright, "up and coming" assistant, you automatically see the opportunity to use the software to help collect data for your research. You have been attending a seminar to learn how to use the software. Today's portion of the seminar will cover formulas and computations. You know how to create a formula in a cell that will add many cells together automatically and recalculate that total if the value in any of those cells is changed.

Instructions:

- Prepare a spreadsheet with names of each one of the Quality Assurance Assistants in the room and the number of different colors of M & M candies that they have in their package.
- Total the number of candies that each Quality Assurance Assistant has.
- Total the number of each individual color.
- Find the MAX and MIN in the position of each assistant.
- Figure the percentage of the colors that each person has in their package.
- Assign one member of your department to act as Quality Control person go around and check the individual packages in your checking for all reds, greens, & etc.

Learning Styles Field Review

SUGGESTED SOLUTION

NAMES	RED	YEL	GR	TAN	OR	BRN	TOTAL
John Doe	4	6	8	5	7	20	50
Mary Smith	7	15	3	9	4	17	55
Bill Brown	5	9	6	7	8	16	51

NAMES	RED	YEL	GR	TAN	OR	BRN	TOT	MAX	MIN	%RED	%YEL
John Doe	4	6	8	5	7	20	50	20	4	8.00%	
Mary Smith	7	15	3	9	4	17	55	17	3	12.73	%
Bill Brown	5	9	6	7	8	16	51	16	5	9.80%	

Total	16	30	17	21	19	53	156				
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Learning Style Field Review Activities

SPREADSHEETS

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.
- 2.2 Enter and manipulate data.
- 2.4 Demonstrate some advanced mathematical functions.

ACTIVITY NAME: Shopping for a Bank

LEARNING STYLE STRATEGY:	Brainstorming, Simulation, Case Study
PERCEPTUAL STRENGTHS:	Tactile, Visual, Auditory
ACTIVITY DYNAMICS:	Brainstorming-Case Study-Simulation
STUDENT OUTCOME:	****The student will learn the different functions of a bank, how to choose a bank, and how a checkbook is set up.
SUMMARY:	****This activity is to teach the student how to set up a checkbook using a spreadsheet.
TEACHER PREPARATION:	1. Brainstorm with students about the bank functions and services. 2. Invite an officer of a bank as a guest speaker to discuss the bank functions and services. 3. Have students shop for a bank. Have the students do a case study after finding out about the functions/services of the bank to choose the right bank. 4. Provide students a dollar amount to start checking account/savings account. Some banks require different amount to open an account. Discuss with the students that a deposit may not be drawn, depending on bank policy, on for 3 or 4 days after the deposit. 5. Discuss the process of ordering checks in a small amounts and why to request starting the numbering of the checks at a larger number. (The larger the number is, the more stable the individual looks.) 6. Explain the use of the ATM (Automated Teller Machines) and charges that occur.

Learning Style Field Review Activities

Evaluate on the design and correctness of the formulas.

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate the design of the spreadsheet as well as the accuracy.

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

STUDENTS' INSTRUCTIONS

You have decided to open up your own checking account but instead of just keeping records in the traditional way, you wish to set up a spreadsheet to keep track of the accuracy of your records so that you do not overdraw.

Design a spreadsheet to set up a checkbook account on your home computer that will enable you to type in the check number, the date, to whom the check was written and a short description, amount of the check, an area for a deposit and figure the running total of your balance.

Test the design to make sure that it works for all situations that might arise (service charges, overdraft charges, automatic withdrawals).

Learning Style Field Review Activities

SUGGESTED SOLUTIONS

Check No.	Date	Whom check was written Description	Amount	Deposit
	1/4	Deposit		250.00
100	1/5	Mary Smith	40.00	
101	1/7	Bill Brown	75.00	
	1/9	Deposit		100.00

Learning Style Field Review Activities

SPREADSHEETS

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.
- 2.2 Enter and manipulate data.
- 2.4 Demonstrate some advanced mathematical functions.

ACTIVITY NAME: NEW YORK STOCK EXCHANGE

LEARNING STYLE STRATEGY:	Brainstorming, Simulation
PERCEPTUAL STRENGTHS:	Tactile, Visual, Auditory
ACTIVITY DYNAMICS:	Brainstorming, Simulation
STUDENT OUTCOME:	*The students will learn how the stock market operates and how to buy and sell stocks.
SUMMARY:	*This activity will help the student to use the spreadsheet in stock market activities.
SUGGESTED MODIFICATIONS:	None
TEACHER PREPARATION:	1. Brainstorm about the Stock Market as to what the students know. 2. Have the local stock broker come and speak to your class about buying and selling of stocks. 3. Have your students buy at least 5 different stocks, using the amount of money that they have to spend. Every time they buy or sell at least one stock, they have to pay the broker 15% commission. 4. Have each student set up a spreadsheet with the names of the different stocks that they have bought in a column A. 5. The price of the stock in column B, and the Total price of the stock in Column C. 6. In Column D, the date and the price of the stock per share on that date and etc. 7. Bring at least two newspapers to class over the time period to check prices of stocks on a daily basis.

Learning Style Field Review Activities

8. Have your students write to the companies that they have bought stock in, asking some of the following questions: (Do this early so students have adequate time to get this information into their reports.
 1. When was your company started?
 2. When was your company put on the Stock Exchange?
 3. What are the major products that are produced?
 4. What is the amount of the last dividend paid per share?
 5. What is your amount of capital with respect to long-term loans?
 6. Request a prospectus about the company be sent?
9. At the end of a four week period or longer, have the students create a line graph displaying how the stocks have fluctuated.

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate on the design, correctness of the formulas used and the report made at the end of the activity.

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

STUDENTS' INSTRUCTIONS

You have saved \$10,000 and have decided to invest in stocks on the New York Stock Exchange. Your broker has told you that you have to pay 15% commission when you buy and sell your stocks. Investigate some of the companies that are on the exchange and decide what stocks you will buy.

On a daily basis, you will check the newspaper for the closing price of your stocks for a period of 4 weeks and post the closing price on your spreadsheet. At any time, you can sell your stocks and buy others (remember the commission for buying and selling).

At the end of the period, report to the class about each of your stocks and the results of your experience in dealing with the stock market. You may use graphs, created on a spreadsheet, to display how your stocks were fluctuating over the period.

Learning Style Field Review Activities

SUGGESTED SOLUTIONS

STOCK	SYMBOL ON XCHANGE XCHANGE	PRICE PER SHARE	NO OF SHARES BOUGHT	TOTAL PRICE PAID	TOTAL SPENT	COMM ISSION 15%	DATE 2-1-94
Walmart	WALMT	27.75	100	2775.00			28.00
Southwestern Bell	Sw Bell	39.00	50	1950.00			38.75
Tandy	Tandy	44.75	50	2237.50			44.50
Alaska Air	Alsk Air	17.75	35	621.25			18.25
Eastern Kodak	Ekodak	43.50	25.5	1109.25			43.75
Total				8693	9996.95	1303.95	

Learning Style Field Review Activities

SPREADSHEETS

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.
- 2.2 Enter and manipulate data.
- 2.4 Demonstrate some advanced mathematical functions.

ACTIVITY NAME: Buying an Automobile

LEARNING STYLE STRATEGY:	Role-Play, Simulation
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, Auditory
ACTIVITY DYNAMICS:	Role-Play, Simulation
STUDENT OUTCOME:	The student will learn about the buying of an automobile as well as insurance for the vehicle.
SUMMARY:	This activity will help the student forecast the buying of a car and insurance.
SUGGESTED MODIFICATIONS:	Role-play several times using several different students in the class to role-play being the buyer and the seller.
TEACHER PREPARATION:	1. Use newspaper ad for shopping for a car. Looking for the different types of cars, prices and financing availability, leasing and trade-ins. 2. Use some students to role play in buying a car. Use a popular athlete or cheerleader situation and a pushy salesman approach. Regardless of money situation, pushy salesman wants to make a sale and will promise anything. 3. Invite an insurance agent to speak to the class on the different types and costs of car insurance. 4. Have the students prepare a spreadsheet for the three automobiles, figuring the total cost of each vehicle and the amount financed. 5. Once the amount financed is figured use the function PMT to figure the monthly payment.

Learning Style Field Review Activities

Example: @PMT(Amount Financed, Interest Rate/12, Number of months Financed)

NOTE:

The interest rate was divided by 12 because the rate is based on an annual percentage and payments are made 12 times per year (monthly).

6. In the extended activity consider a trade-in amount and a smaller downpayment to help decide which would be the best buy.
7. If you are considering leasing a vehicle, there are several ways that this option can be handled.
 - You can make a downpayment and monthly payments for a shorter period of time or have smaller payments.
 - You can have no downpayment and slightly higher payments each month for a period of five years.

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate the spreadsheet on design and correctness of formulas.

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

STUDENTS' INSTRUCTIONS

You are looking at three different automobiles and want to buy all three but can only afford to buy one.

- The cost of the GEO Storm is \$9,688 plus 6% for TT&L.
- The cost of the Ford Tempo is \$8,988 plus 7% for TT&L.
- The cost of the Toyota Corolla is \$10,995 plus 8% TT&L.
- Each require a downpayment of \$1,000.
- The rate of interest is 9.6%

You need to know what the monthly payment will be for each one if you decided to buy one and pay for it in 36 months, 48 months, or 60 months.

Create a spreadsheet to help you decide which automobile to buy.

To extend the activity, consider a trade-in along with a smaller downpayment. Also consider leasing the car instead of buying it.

In your budget that has been prepared, consider the costs of car insurance for the type of car that you are buying as well as the payment on the vehicle that you are buying.

Learning Style Field Review Activities

SUGGESTED SOLUTION

	GEO Storm	Ford Tempo	Toyota Corolla
Cost	\$9,688.00	\$8,988.00	\$10,995.00
TT&L Rate	6.00%	7.00%	8.00%
Total Cost	\$10,269.28	\$9,617.16	\$11,874.60
Downpayment	\$1,000.00	\$1,000.00	\$1,000.00
Amount Financed	\$9,269.28	\$8,617.16	\$10,874.60
Interest Rate	9.60%	9.60%	9.60%
Payment Period 1	36	36	36
Payment	\$297.36	\$276.44	\$348.85
Payment Period 2	48	48	48
Payment	\$233.32	\$216.90	\$273.72
Payment Period 3	60	60	60
Payment	\$195.13	\$181.40	\$228.92

Learning Style Field Review Activities

SPREADSHEET

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.
- 2.2 Enter and manipulate data.
- 2.4 Demonstrate some advanced mathematical functions.

ACTIVITY NAME: Loan Amortization

LEARNING STYLE STRATEGY:	Simulation
PERCEPTUAL STRENGTHS	Tactile, Visual, Auditory
ACTIVITY DYNAMICS:	Simulation
STUDENT OUTCOME:	The student will learn about loans, renegotiation of loans, interest rates, resale of property and using the spreadsheet in doing this activity.
SUMMARY:	This the first of five activities that can be used as a project. Teaching entrepreneurship is important to our society. This project is a simulation of some of the things that an individual would encounter in setting up a business.
SUGGESTED MODIFICATIONS:	None
TEACHER PREPARATION:	1. The next five activities should be used as a project. 2. Have the students work at their desk doing problem solving. 3. Have a realtor speak to the class about interest rates and renegotiation of loans. 4. Make a template using the spreadsheet; therefore, any amount, rate of interest, or time period can be plugged in. 5. Once the students have completed the spreadsheet on their own. Show the students the Quicken program and Microsoft Works that have amortization schedules built in and makes it easier to use.

Learning Style Field Review Activities

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate the spreadsheet on the design and accuracy.

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

STUDENTS' INSTRUCTIONS

You have gone to the First National Bank of your town. You want to be your own boss and will be buying a business at a price of \$80,000 with a downpayment of 5%, at an interest rate of 7.5%.

You need an amortization schedule describing the type of loan, rate of interest, price paid, loan balance, monthly payment, amount of interest, part of payment that is applied to the principal, and balance after each monthly payment. The loan balance equals the previous balance less the amount applied to principal.

Use the function PMT to figure the monthly payment. Use the PV function which returns the present value of an annuity. An annuity is a series of fixed payments made at the end of a fixed number of terms at a fixed interest rate. The general form of the PV function is:

@PV(payment, interest, term). Use this function is used to determine the ending balance after the first year.

By using the IF function, you can assign the PV function or zero as the ending balance. The IF function is written:

@IF(cell <= years, @PV(monthly payment, Rate/12, 12*(years-cell having the number of years in it)),0).

@IF(cell>0, 12 * monthly payment-principal, 0) gives you the interest paid.

Learning Style Field Review Activities

SUGGESTED SOLUTION

AMORTZ	
Cost	80000
Downpayment	4000
Financed Amount	76000
Interest rate	0.075
Monthly Payment	531.4030265
Number of months	360

Month	Beginning Balance	Monthly Payment	Amount of Interest	Principal	Ending Balance
1	76000.00	531.40	475.00	56.40	75943.59697
2	75943.60	531.40	474.65	56.76	75886.84143
3	75886.84	531.40	474.29	57.11	75829.73116
4	75829.73	531.40	473.94	57.47	75772.26395
5	75772.26	531.40	473.58	57.83	75714.43758
6	75714.44	531.40	473.22	58.19	75656.24979
7	75656.25	531.40	472.85	58.55	75597.69832
8	75597.70	531.40	472.49	58.92	75538.78091
9	75538.78	531.40	472.12	59.29	75479.49526
10	75479.50	531.40	471.75	59.66	75419.83908
11	75419.84	531.40	471.37	60.03	75359.81005
12	75359.81	531.40	471.00	60.40	75299.40584
13	75299.41	531.40	470.62	60.78	75238.6241
14	75238.62	531.40	470.24	61.16	75177.46247
15	75177.46	531.40	469.86	61.54	75115.91858
16	75115.92	531.40	469.47	61.93	75053.99005
17	75053.99	531.40	469.09	62.32	74991.67446
18	74991.67	531.40	468.70	62.71	74928.9694
19	74928.97	531.40	468.31	63.10	74865.87243
20	74865.87	531.40	467.91	63.49	74802.38111
21	74802.38	531.40	467.51	63.89	74738.49296
22	74738.49	531.40	467.12	64.29	74674.20552
23	74674.21	531.40	466.71	64.69	74609.51627
24	74609.52	531.40	466.31	65.09	74544.42272
25	74544.42	531.40	465.90	65.50	74478.92234

Learning Style Field Review Activities

SPREADSHEET

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.
- 2.2 Enter and manipulate data.
- 2.3 Write and use a simple macros.
- 2.4 Demonstrate some advanced mathematical functions.
- 2.5 Print and graph the results and save the template.

ACTIVITY NAME: Accounting Income Statement and Balance Sheet

LEARNING STYLE STRATEGY:

Role-Play, Simulation

PERCEPTUAL STRENGTHS

Kinesthetic, Tactile, Visual, Auditory

ACTIVITY DYNAMICS:

Role-Playing, Simulation

STUDENT OUTCOME:

The Human Macro will be used to explain the concept of how the macro is set up using students as the model. The students will learn how to use the macro in an Accounting Income Statement.

SUMMARY:

This activity will give the student practice in using a macro in a spreadsheet as well as learning about income statements and balance sheets.

TEACHER PREPARATION:

1. Using the desks in your classroom, set up a design of a spreadsheet—Rows and Columns.
2. Assign a student as Worksheet, one as Range, one as Format, one as Fixed, one as Currency, one as Percent, one as Macro A, one as Macro B, one as Macro C, one as Macro D, one as the ALT key, one as the letter A, one as the letter B, one as the letter C, one as the letter D, one as Name, one as Create, one for \, assign a student as Column A, one as Column B, one as Column C, and one as Column D.
3. Have a student create a Macro by putting specific students together from the assigned names.

Learning Style Field Review Activities

4. Have a student name the Macro by putting specific students together from the assigned names.
5. Create a spreadsheet that will be used as a template to check the progress of a business utilizing the names of specific accounts in the business.
6. Create a macro to format the specific columns for currency with 2 decimal places.
7. Name the macro that formats the specific columns.

An income statement shows the progress of the business over a period of time. Gross profit is computed by deducting cost of goods and sold from the sales revenue. Net income is computed by deducting total operating expenses from the gross profit amount.

Create a spreadsheet template to check the progress of the business at any time utilizing the names of the specific accounts used by the business. Create and name a macro to format the specific columns for currency with 2 decimals.

A balance sheet shows the assets and liabilities of a business. All assets equal liabilities and capital. Create a spreadsheet template to check the assets and liabilities of the business. Use a macro to format the specific columns for currency with 2 decimals.

Learning Style Field Review Activities

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate on the design correctness of the spreadsheet and the use of formulas.

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

SUGGESTED SOLUTION

INCOME STATEMENT

Revenue:		
Sales		\$45,000.00
Cost of Goods Sold		\$11,700.00
Gross Profit on Sales		\$33,300.00
Operating Expenses:		
Salaries Expense	\$12,450.00	
Delivery Expense	\$6,500.00	
Supplies Expense	\$2,950.00	
Utilities Expense	\$1,670.00	
Miscellaneous Expenses	\$250.00	
Total Operating Expenses		\$23,820.00
Net Income		\$9,480.00

D
Macro to format column D, Currency, 2
decimals

/RFC2~D4.D18~/

C
Macro to format column C, Currency, 2
decimals

/RFC2~C11.C15~/

Learning Style Field Review Activities

SPREADSHEETS

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.
- 2.2 Enter and manipulate data.
- 2.3 Write and use a simple macros.
- 2.4 Demonstrate some advanced mathematical functions.
- 2.5 Print and graph the results and save the template.

ACTIVITY NAME: Rebels Department Store

LEARNING STYLE STRATEGY: Simulation

PERCEPTUAL STRENGTHS Tactile, Visual, Auditory

ACTIVITY DYNAMICS: Simulation

STUDENT OUTCOME: The student will understand how a company buys and sells products to make a profit.

SUMMARY: This activity will help the student set up a business, working with mark-up, sales, and expenses.

SUGGESTED MODIFICATIONS: Consider using the other activity for students who have an agricultural background.

Learning Style Field Review Activities

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate on the design of the spreadsheet and the accuracy of the formulas.

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

STUDENTS' INSTRUCTIONS

Welcome to the Rebels Department Store. A big sale is going on and it is your job to put the information regarding the sale into a spreadsheet. It is up to you to create a great looking spreadsheet. You may change column widths if you need to. You decide which label prefixes are needed and which cell you will key in all the information.

1. Create a spreadsheet for the Rebel Department Store.
2. Figure the cost of each department. The merchandise in the Housewares Department has a mark-up of 40%. The merchandise in the Fine China Department has a mark-up of 75%. The merchandise in the Accessory Department has a mark-up of 60%. The merchandise in the Sportswear Department is 85% for the Tops and 70% for the Bottoms.
3. Total the merchandise sold for the three days for each product. Total the dollar amount in sales for each product. Total the sales for each day for each department, Total the merchandise sold for each department. Total the dollar amount in sales for each department. Figure the amount of profit for each item and department, Total the departments and figure the gross profit for the store.
4. The expenses are 65% of the Gross Profit.

REBEL DEPARTMENT STORE

Housewares Department

Item	Price	Day 1	Day 2	Day 3
Blenders	35.00	300	400	1000
Irons	25.00	200	100	2000
Revereware	205.00	500	300	1200
Coffee Pots	20.00	100	500	1500
Knives	30.00	600	200	2000
CorningWare	15.00	200	400	800
Mixing Bowls	10.00	100	50	600
Electric Mixers	25.00	50	150	750

Learning Style Field Review Activities

Fine China Department

Item	Price	Day 1	Day 2	Day 3
<i>China</i>				
Lamox	95.00	85	80	150
Wedgwood	105.00	70	65	125
Noritaki	110.00	100	35	97
<i>Crystal</i>				
Waterford	300.00	50	45	90
Nortaki	150.00	200	105	200
Wedgwood	100.00	300	67	350
<i>Silver</i>				
Westington	50.00	100	97	150
Wellington	75.00	110	93	160

Accessory Department

Item	Price	Day 1	Day 2	Day 3
<i>Belts</i>				
Linen	10.00	600	800	400
Leather	25.00	100	100	100
Snake	35.00	200	200	200
Fabric	18.00	900	600	600
<i>Scarves</i>				
Oblong	15.00	2000	2000	2000
Rectangular	15.00	1000	1000	1000
Square	15.00	500	500	500
Round	15.00	400	400	400
<i>Hair</i>				
Ribbons	4.00	800	1000	3000
Bows	6.00	800	1000	3000
Barrettes	5.00	800	1000	3000
Combs	4.00	800	1000	3000

Sportswear Department

Item	Price	Day 1	Day 2	Day 3
<i>Tops</i>				
Tanks	15.00	500	800	1200
Tees	15.00	300	300	850
Crop Tops	20.00	50	500	600
<i>Bottoms</i>				
Shorts	9.99	600	800	1100
Jams	15.99	545	600	750
Baggies	15.99	609	410	800
Denim	24.99	210	350	500

Learning Style Field Review Activities

SUGGESTED SOLUTION

Housewares Dept

Item	Cost	Price	Day 1	Day 2	Day 3	Total Sold	Total Sales
Blenders	25.00	35	300	400	1000	1700	59500.00
Irons	17.86	25	200	100	2000	2300	57500.00
Revereware	146.43	205	500	300	1200	2000	410000.00
Coffee Pots	14.29	20	100	500	1500	2100	42000.00
Knives	21.43	30	600	200	2000	2800	84000.00
CorningWare	10.71	15	200	400	800	1400	21000.00
Mixing Bowls	7.14	10	100	50	600	750	7500.00
Electric Mixers	17.86	25	50	150	750	950	23750.00
Total			2050	2100	9850	14000	705250.00

Fine China Dept

China							
Lennox		95	85	80	150		
Wedgewood		105	70	65	125		
Noritaki		110	100	35	97		
Total							

Crystal							
Waterford		300	50	45	90		
Nortaki		150	200	105	200		
Wedgewood		100	300	67	350		
Total							

Silver							
Westington		50	100	97	150		
Wellington		75	110	93	160		
Total							

Accessory Dept

Belts							
Linen		10	600	800	400		
Leather		25	100	100	100		
Snake		35	200	200	200		
Fabric		18	900	600	600		
Total							

Scarves							
Oblong		15	2000	2000	2000		

Learning Style Field Review Activities

Rectangular	15	1000	1000	1000
Square	15	500	500	500
Round	15	400	400	400
Total				

Hair				
Ribbons	4	800	1000	3000
Bows	6	800	1000	3000
Barrettes	5	800	1000	3000
Combs	4	800	1000	3000
Total				

Sportswear Dept

Tops				
Tanks	15	500	800	1200
Tees	15	300	300	850
CropTops	20	50	500	600
Total				

Bottoms

Shorts	9.99	600	800	1100
Jams	15.99	545	600	750
Baggies	15.99	609	410	800
Denium	24.99	210	350	500
Total				

Learning Style Field Review Activities

SPREADSHEET

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.**
- 2.2 Enter and manipulate data.**
- 2.3 Write and use a simple macros.**
- 2.4 Demonstrate some advanced mathematical functions.**

ACTIVITY NAME: Payroll

LEARNING STYLE STRATEGY: Simulation

PERCEPTUAL STRENGTHS: Tactile, Visual, Auditory

ACTIVITY DYNAMICS: Simulation

STUDENT OUTCOME: Working on the project, the student will understand how the rate of pay and the number of hours less deductions becomes payroll.

SUMMARY: This activity will help the student understand how the rate of pay and the number of hours less deductions become payroll.

Learning Style Field Review Activities

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate the design and correctness of formulas.

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

STUDENTS' ACTIVITIES

1. Create a payroll template.
2. Overtime pay will be one and one-half times the pay rate for all hours worked in excess of 40. If the employee did not work in excess of 40 hours during the week, the overtime will be 0. You should use an IF formula to reflect this pay plan.

Example: $\text{@IF}(C4>40,(C4-40)*(b4/2+b4),0)$

3. Regular pay will equal the hours worked times the pay rate unless hours have been worked in excess of 40. If hours have been worked in excess of 40, regular pay will equal 40 times the pay rate. You should use an IF formula to reflect this pay plan.

Example: $\text{@IF}(C4>40,40*B4,B4*C4)$

4. Gross pay is simply the overtime pay amount plus the regular pay amount.

Example: $+D4+E4$

In a business atmosphere, payroll is an essential part. Provide your own data and design a payroll register for 10 employees giving the name of the employee, hours worked, pay rate, overtime pay, regular pay, and gross pay.

Other information that the register may contain might be address, length of service, and deductions. Overtime rate will be one and one-half the pay rate of all hours worked in excess of 40 hours during the week. If the employee did not work in excess of 40 hours during the week, the overtime pay would be \$0.00.

Name of employee	Rate of Pay	Hours Worked	Overtime Pay	Regular Pay	Gross Pay
Bill Brown	4.35	41			
Mary Smith	6.30	38			
Chad Turner	7.00	45			
Tim Jones	7.40	42			
Roy Williams	8.80	44			
Jerry Green	8.85	40			
Jimmy Allen	7.75	36			
Cindy Durham	9.60	40			
Kelly Horn	10.25	42			
Tammy Henry	9.25	41			
Terrena Norris	6.40	36			

Learning Style Field Review Activities

SUGGESTED SOLUTION

Name of employee	Rate of Pay	Hours Worked	Overtime Pay	Regular Pay	Gross Pay
Bill Brown	4.35	41	6.52	174.00	
Mary Smith	6.30	38	0.00	239.40	
Chad Turner	7.00	45	52.50	280.00	
Tim Jones	7.40	42	22.20	296.00	
Roy Williams	8.80	44	52.80	352.00	
Jerry Green	8.85	40	0.00	354.00	
Jimmy Allen	7.75	36	0.00	279.00	
Cindy Durham	9.60	40	0.00	384.00	
Kelly Horn	10.25	42	30.75	410.00	
Tammy Henry	9.25	41	13.88	370.00	
Terrena Norris	6.40	36	0.00	230.40	

PAY3

Name of employee	Rate of Pay	Hours Worked	Overtime Pay	Regular Pay	Gross Pay
Bill Brown	4.35	41	6.52	174.00	180.53
Mary Smith	6.30	38	0.00	239.40	239.40
Chad Turner	7.00	45	52.50	280.00	332.50
Tim Jones	7.40	42	22.20	296.00	318.20
Roy Williams	8.80	44	52.80	352.00	404.80
Jerry Green	8.85	40	0.00	354.00	354.00
Jimmy Allen	7.75	36	0.00	279.00	279.00
Cindy Durham	9.60	40	0.00	384.00	384.00
Kelly Horn	10.25	42	30.75	410.00	440.75
Tammy Henry	9.25	41	13.88	370.00	383.87
Terrena Norris	6.40	36	0.00	230.40	230.40

Learning Style Field Review Activities

SPREADSHEET

COMPETENCIES:

- 2.1 Plan a spreadsheet and design a template for it.
- 2.2 Enter and manipulate data.
- 2.3 Write and use a simple macros.
- 2.4 Demonstrate some advanced mathematical functions.
- 2.5 Print and graph the results and save the template.

ACTIVITY NAME: Inventory Record

LEARNING STYLE STRATEGY:

Simulation

PERCEPTUAL STRENGTHS:

Tactile, Visual, Auditory

ACTIVITY DYNAMICS:

Simulation

STUDENT OUTCOME:

Working with the project, the student will learn another phrase of a business in keeping an inventory using a spreadsheet.

SUMMARY:

This activity will provide the student the opportunity to work with an inventory and in maintaining information about merchandise for resale.

TEACHER PREPARATION:

1. The inventory record is used to maintain information about individual items of merchandise. This record may also contain information about the date of purchase, name of usual supplier, cost and sale price of the item, minimum acceptable inventory level and other related information
2. The formula in cell F7 should reflect the beginning balance plus units purchased or minus units sold.
3. The formula in cell F8 should reflect the prior balance plus units purchased or minus units sold. You can then copy this formula from cell F8 into the remaining cells in the column.

Provide your own data and keep an inventory record to maintain information about individual items of merchandise. This record may contain information about date of purchase, name of the usual supplier, cost and

Learning Style Field Review Activities

sale price of the item, minimum acceptable inventory level, and other related information.

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO

EVALUATION:

Evaluate the design of the spreadsheet as well as the correctness of the formulas..

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

SUGGESTED SOLUTION

Item: Reams of Paper Cost: \$2.35 Begin. Bal.	Supplier: Ace Paper Co. Retail: \$4.25	450
--	--	-----

Date	Purchased	Sold	Balance
1/23	45		495
2/12		35	
2/26		120	
3/15	200		
4/21	50		
4/23		250	
5/16		20	
6/12	100		
6/22		60	
7/14		125	
8/25	180		
9/30		85	
10/22		110	
11/8	85		
INV2			

Item: Reams of Paper Cost: \$2.35 Begin. Bal.	Supplier: Ace Paper Co. Retail: \$4.25	450
--	--	-----

Date	Purchased	Sold	Balance
1/23	45		495
2/12		35	460
2/26		120	340
3/15	200		540
4/21	50		590
4/23		250	340
5/16		20	320
6/12	100		420
6/22		60	360
7/14		125	235
8/25	180		415
9/30		85	330
10/22		110	220
11/8	85		305

Data Base

BEST COPY AVAILABLE

Learning Style Field Review Activities

DATABASE

COMPETENCY

1.1: Use terminology associated with database management systems.

ACTIVITY NAME: A FUN WAY TO REMEMBER THESE WORDS!

LEARNING STYLE/STRATEGY	Individual
PERCEPTUAL STRATEGY:	Kinesthetic, Tactile, and Visual
ACTIVITY DYNAMICS:	Memory Bank
STUDENT OUTCOME:	
SUMMARY:	For the review of terminology, use the memory bank—place the word on one side of the card and the answer on the other.
MODIFICATIONS:	An alternative for terminology might be to test with a matching exam or even a crossword puzzle of terminology for database.
NOTE:	The terms need to be updated for this unit.
SUGGESTED MODIFICATIONS:	
TEACHER PREPARATION:	Memory Bank and cards or have your students make them. Decide on "contest" and prizes.
SUPPLIES/MATERIALS NEEDED:	
STEP-BY-STEP PREPARATIONS:	
MEANS OF ASSESSMENT:	
CONTRIBUTION TO PORTFOLIO:	
EVALUATION:	Divide class into two teams. Questions—either terms or definitions—are fielded to both teams giving the second team a chance to answer any questions which were previously missed by the first team. Continue until time is called. Keep a running score throughout the units on database and let the "winners" have some sort of "database reward".

Learning Style Field Review Activities

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

A set of data positions treated as a unit.	Combines all the files of a company
To bind and select information stored.	To put information into storage and also to retain data in storage usually on a disk.
A list of options.	Process that allows removal of words, characters, or larger pieces of text, insertion of new text, and movement of text from one position to another.
A general term used to describe names, numbers, facts, letters, symbols, etc.	Feature that allows changes to be made in a record
Process of arranging records into a particular order, such as alphabetical or numerical.	Feature that tells the computer to look for a specific record.
A set of related data fields treated as a unit.	A predetermined method of arranging characters, lines, punctuation, etc.

Learning Style Field Review Activities

Database	Field
Store	Retrieve
Editing	Menu
Update	Data
Search	Sorting
Format	Record

Learning Style Field Review Activities

Learning Style Field Review Activities

Learning Style Field Review Activities

DATABASE

COMPETENCY 1.2: Explain the purpose and benefits of databases.

ACTIVITY NAME: WE CAN BE RAP STARS!

LEARNING STYLE STRATEGY

Group

PERCEPTUAL STRATEGY:

Kinesthetic, Tactile, Visual, and audio

ACTIVITY DYNAMICS:

Rap

STUDENT OUTCOME:

SUMMARY:

The students will read material given by teacher about the purpose and benefits of database.(Teacher will also present material) They will then come together in a small group and create a rap which will be presented to the rest of the class by one or more of the group members.

An example might be:

Data-base is im-portant to all of us
It helps us to keep all our info together
A telephone book is a data-base
Calling our friends is then a cinch
etc . . .

SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:

Supplies and materials needed:

Step-by-step preparations:

Learning Style Field Review Activities

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO:

EVALUATION:

Exam:

1. A policeman has pulled someone over for speeding who actually is driving a stolen car. He goes back to his car's computer to enter the violation. List reasons why a database would be valuable to that policeman:
 - a. _____
 - b. _____
 - c. _____
2. You have worked hard on a bonus project and your teacher gives you a very good grade. You need that grade and you are hoping that your teacher will be sure to credit you properly for the work because there are three other students in your class with the same last name as yours. How would a database be valuable to your teacher?
 - a. _____
 - b. _____
 - c. _____
3. You want to confirm your airline ticket for your weekend "getaway" planned during spring break. How would a database be valuable to the airline?
 - a. _____
 - b. _____
 - c. _____
4. Give three examples of how database management could be valuable to you?
 - a. _____
 - b. _____
 - c. _____

ANSWER KEY:

TIME FRAME:

SCANS:

Leadership

Learning Style Field Review Activities

TAAS:

COMMON EE'S:

Leadership

Learning Style Field Review Activities

DATABASE

COMPETENCY

1. 3: List typical capabilities of database management software.

LEARNING STYLE STRATEGY:	Circle of knowledge
PERCEPTUAL STRATEGY:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Group Activity:
STUDENT OUTCOME:	Students will be able to list typical capabilities of database management software.
SUMMARY:	Prepare placards with database capabilities big enough to be seen from front of room. Finish with a string which can go around students' necks.
SUGGESTED MODIFICATIONS:	This activity could be modified in different ways. One way might be just to let each student come to the front as teacher discusses each capability and then they will all stand where the class can see. Or, you might write a short statement on the backs of each placard so the students can read a description of the capabilities. (See attached sheet entitled "Database Competency Checklist" which could be introduced here and then would be used later as an actual checklist when the students actually create a database.)
TEACHER PREPARATION:	
Supplies and Materials Needed:	
Step-BY-Step Preparations:	
NOTE:	Teacher might recruit some of students who like to draw, etc. (Tactile) to make the placards.

MEANS OF ASSESSMENT:

Learning Style Field Review Activities

CONTRIBUTION TO PORTFOLIO: None

EVALUATION:

Use "Circle of Knowledge" The questions would be: "List all the typical capabilities of database management software that you can." Each group will come up with as many correct answers as they can. Add to cumulative score of the teams begun in first of this unit.

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

DATABASE

COMPETENCY

1.4: Describe three types of database structures

ACTIVITY NAME: BUILDING DATABASE STRUCTURES

LEARNING STYLE STRATEGY: Models

PERCEPTUAL STRATEGY: Tactile, Visual, Auditory

ACTIVITY DYNAMICS: Group or individual

STUDENT OUTCOME: Student will be about to describe three types of database structures.

SUMMARY: Students are dividing into three groups

SUGGESTED MODIFICATIONS:

TEACHER PREPARATION:

Supplies/materials needed:

Step-by-step preparations:

NOTE: This is the competency I would leave out

I can think of nothing else except to describe the three types of database structures.

Learning Style Field Review Activities

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

DATABASE

COMPETENCY

1.5: Discuss criteria for comparing software packages.

ACTIVITY NAME: Shop 'til You Drop for DB Software Packages!!

LEARNING STYLE

Simulation

PERCEPTUAL STRATEGY:

K, T, V, A

ACTIVITY DYNAMICS:

Group or Individual

STUDENT OUTCOME:

Student will be able to compare database software packages.

SUMMARY

SUGGESTED MODIFICATIONS:

Instead of getting the actual packages you may have to allow students to do magazine research, collect database program software or have software demonstrations from outside vendors and have students responsible for answering questions.

TEACHER PREPARATION:

Supplies and materials needed:

Database software packages, computer magazines, catalogs, and database brochures.

Step-by-step preparations:

Students will "shop" for software. Give them \$300 for each team. Also provide several computer publications and catalogs. Each group will report back to the class what software they bought. They will also need to account for their budget. Did they have a balance left over? Were they able to stay within their budget? They should also have a complete knowledge of the capabilities of their software package. Also, they should pay close attention that it is compatible with the computer systems they will be using. They could write a recommendation-short proposal to defend their choice. The proposal should include feasibility, cost, special features, and usefulness to their class and will be presented orally.

Learning Style Field Review Activities

MEANS OF ASSESSMENT:	Group and presentation.
CONTRIBUTION TO PORTFOLIO:	Proposal could be added.
EVALUATION:	The recommendation/proposal could be used as a major grade (possibly a test grade)
ANSWER KEY:	
TIME FRAME:	
SCANS:	Basic, leadership
TAAS:	Problem solving
COMMON EE'S:	Budgeting and leadership

Learning Style Field Review Activities

DATABASE

COMPETENCY

2.1: Create a Database

ACTIVITY NAME:

LEARNING STYLE STRATEGY:

Mind map

PREFERENCE STYLE:

Tactile, Visual, Auditory

ACTIVITY DYNAMICS:

Group

For the planning of the DB, create a mind map with the students. Use files/file cabinets as symbols to represent creating of the DB.

Learning Style Field Review Activities

DATABASE

Competencies

- 2.2 Design and edit input and report forms
- 2.3 Enter and manipulate data
- 2.4 Query the database
- 2.5 Use selection criteria for printing reports

ACTIVITY NAME: Simulation

LEARNING STYLE

Simulation-hands-on

PREFERENCE STYLE:

Kinesthetic, Tactile, Visual, Auditory

ACTIVITY DYNAMICS:

Individual

STUDENT OUTCOME:

Student will be able to design, edit, enter and manipulate data, query a database, report forms, and use selection criteria for printing reports.

SUMMARY:

For this activity, see the attached sheets _____
business education simulation.

SUGGESTED MODIFICATION:

Allow the students to create their own database.

A good idea used in many schools would be to allow them to have a project for the entire school such as "Dating Game", Etc.

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO:

EVALUATION:

To the satisfaction of the instructor.

Prepare a blank Venn diagram on a transparency film

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO:

Learning Style Field Review Activities

EVALUATION:

Circle of Knowledge

ANSWER KEY:

TIME FRAME:

1 1/2 to 2 weeks

SCANS:

Personal, problem solving and basic.

TAAS:

Problem solving.

COMMON EE'S:

Success in employment and performing tasks.

Learning Style Field Review Activities

A record is all information for one file.

FIRST, MIDDLE, AND LAST NAME:	Bette Ann Carpenter
STREET ADDRESS:	1704 Maple
CITY, STATE, AND ZIP	Wichita KS 68510
PHONE:	316-897-5219
BIRTHDATE:	11/2/76
HEIGHT:	5'7"
WEIGHT:	130
SCHOOL:	Wichita East High School
SOCIAL SECURITY NUMBER:	417-48-6188

Source: *Applications Using the Personal Computer*, South-Western Publishing Company, 1988.
Some data was changed.

Learning Style Field Review Activities

Database Activities

INSTRUCTIONS: The following checklist is provided to ensure correct and adequate information is provided for in a database. Check each item as materials or ideas are gathered.

I. Information to be Contained in a Database

- A. File Name _____
- B. Fields to be Used _____
- C. Length of Fields (if necessary) _____

II. Reports to be Generated

- A. Sketch out Reports to Be Generated _____
- B. Determine Sorting _____

III. After Reports are Sketched, Determine if Information Provided is Essential. _____

INSTRUCTIONS: In the blanks provided, indicate the file names and field names to be used in the following.

As secretary of your Future Business Leaders of America organization, you have been assigned the task of planning a directory of all members. The directory should contain not only the names of each member but also the grade level, phone numbers, address, birth date, business subjects completed, and business subjects currently enrolled in.

FILE NAMES

- 1. _____
- 2. _____
- 3. _____

FIELD NAMES

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____

Learning Style Field Review Activities

INSTRUCTIONS: Create a database that includes the given fields.

Listed below are the field names for a database. Use the database program available and create a database that includes the given fields. Proofread very carefully. An error made at the beginning repeats itself throughout the required printouts. Depending on the database program being used, you may need to shorten or abbreviate field headings.

Student ID#	Last Name	MI	First Name
Address	City	State	ZIP
Birth Date	Sex		
Grade Level	Advisor	Room #	
Home Phone #			
Grade Status-Passing (Y/N)			

INSTRUCTIONS: Using the database created, enter the records listed below.

RECORD # 1

89
Vic. L. Jones
5209 Glen Vista Drive
Garland, TX 75044
&0/01/09, Male
11, Williamston, 606
554-0090
Yes

RECORD # 3

99
Jane C. Chause
12127 Madeline Circle
Dallas, TX 75230
68/03/04, Female
12, McNeely, 700
554-7890
Yes

RECORD # 5

105
Lauren J. Duncan
4071 Haverwood Lane #1123
Dallas, TX 75201
71/05/06, Female
10, Faulkner, 711
544-9000
Yes

RECORD # 2

90
Omar O. Anderson
P.O. Box 530662
Grand Prairie, TX 75053
69/02/03, Male
12, Pharr, 701
333-3223
Yes

RECORD # 4

100
Lyla L. James
8019 Eagle Trail
Dallas, TX 75287-4210
69/04/05, Female
12, Kort, 714
334-1221
No

RECORD # 6

108
Stacey M. Lanning
5400 Legacy Drive
Plano, TX 75124
69/09/08, Female
10, Hairston, 709
336-0000
No

Learning Style Field Review Activities

INSTRUCTION: Using the appropriate commands, update the following entries.

Vic Jones' address had changed to 13 Jamestown Road.

Omar Anderson's phone number has been changed to 333-2233.

Mary Duckey's advisor has changed to Faulkner.

Lauren Duncan has been moved to the 12th grade. Her advisor now is Ms. Kort in Room 714.

INSTRUCTIONS: Using the appropriate commands, add the following record to the database.

RECORD # 7

Melvin G. Grey
2911 Portsmouth
Mesquite, TX 75145
70/01/01, Male
11, McNeely, 700

No

INSTRUCTIONS: Using the appropriate commands, delete the following record from the database.

RECORD # 5

105
Lauren J. Duncan
4700 Taft Blvd. # 197
Wichita, TX 76308
71/05/06, Female
10, Faulkner, 711
544-9000
Yes

Learning Style Field Review Activities

INSTRUCTIONS: Using the database created, make a search of the current database for the following information using the commands and operations specific to the software package.

SEARCH # 1: Search the full names of the students who are passing under the current database.

SEARCH # 2: Search the full names of the students who are not passing under the current database.

SEARCH # 3: Search the full names, complete addresses, and advisor of all students in the 12th grade in the current database.

SEARCH # 4: Search the full names, birth date, and sex of all female students in the current database.

INSTRUCTIONS: Using the same search items above, print out the records found for each search item. Label each printout as SEARCH # 1, SEARCH # 2, SEARCH # 3, SEARCH # 4.

INSTRUCTIONS: Using the appropriate command for saving, save the database created. After saving the database, remove the file from the computer's memory and retrieve the same file to make sure it is saved.

INSTRUCTIONS: Create a database that includes the given fields.

1. Listed below are the field names for a database program available and create a database that includes the given fields. Proofread carefully—an error at the beginning repeats itself throughout the required printouts. Depending on the database program being used, you may need to shorten or abbreviate field headings.

NAME
BIRTH DATE
FAVORITE FOOD
FAVORITE SPORT
FAVORITE COLOR
SEX

Learning Style Field Review Activities

2. Using the database created, enter the records listed below.

RECORD # 1

Ore, Keith
September
Pizza
Basketball
Red
Male

RECORD # 2

Moore, Ernest
July
Pizza
Basketball
Red
Male

RECORD # 3

Boyd, Angie
March
Pizza
Basketball
Blue
Female

RECORD # 4

Bailey, Katina
December
Pizza
Basketball
Blue
Female

RECORD # 5

Keys, Kimberly
March
Pizza
Basketball
Blue
Female

RECORD # 6

Miller, Brain
May
Pizza
Cross Country
Blue
Male

RECORD # 7

Woolard, Renca
December
Seafood
Basketball
Pink
Female

RECORD # 8

Icard, Pattie
June
Shrimp
Swimming
Blue
Female

RECORD # 9

Hampton, Scott
August
Pizza
Baseball
Blue
Male

RECORD # 10

Greenwood, Brian
December
French Fries
Baseball
Blue
Male

RECORD # 11

Bergevin, Daniel
May
Pizza
Soccer
Blue
Male

RECORD # 12

Tucker, Yachea
January
Pizza
Track
Blue
Female

RECORD # 13

Moore, Ken
October
Pizza
Honda Racing
Red
Male

RECORD # 14

Leary, Jason
October
Pizza
Soccer
Black
Male

RECORD # 15

Gunn, John
January
Pizza
Volleyball
Black
Male

RECORD # 16

Somers, Valinda
August
Pizza
Volleyball
Pink
Female

RECORD # 17

Parvin, Gus
August
Pizza
Tennis
Red
Male

RECORD # 18

Pebbles, Willie
December
Pizza
Volleyball
Red
Male

Learning Style Field Review Activities

3. Using the appropriate commands, update the following entries.

John Gunn's favorite food is spaghetti.

Willie Pebble's favorite color has changed to blue.

4. Using the appropriate commands, add the following record to the database.

Ann Jones
April
Turkey
Basketball
Grey
Female

5. Using the appropriate commands, delete the following record from the database.

RECORD # 8

Pattie Icard
June
Shrimp
Swimming
Blue
Female

6. Using the database created, make a search of the current database for the following information using the commands and operations specific to the software package.

SEARCH # 1 Search the names of the students whose favorite food is pizza.

SEARCH # 2 Search the names of the students whose favorite color is red.

SEARCH # 3 Search the names of the students whose favorite sport is tennis.

SEARCH # 4 Search the names of the students whose favorite food is pizza, favorite color is red, and favorite sport is tennis.

7. Using the same search items above, print out the records found for each search item. Label each printout as SEARCH # 1, SEARCH # 2, SEARCH # 3, SEARCH # 4.

8. Using the appropriate command for saving, save the database created. After saving the database, remove the file from the computer's memory and retrieve the same file to make sure it is saved.

Learning Style Field Review Activities

DATABASE COMPETENCIES CHECKLIST

Record the date you successfully demonstrated competencies on each of the following:

- | | |
|---|--|
| <p>I. File Maintenance/DOS</p> <ul style="list-style-type: none"> A. Boot DOS _____ B. Format a data disk _____ C. Do a diskcopy/back up _____ D. Verify a disk _____ E. Use the directory catalog _____ F. Print the directory/catalog _____ G. Boot the application software _____ H. Save a file _____ I. Rename a file _____ J. Exit the application software _____ <p>II. Open/Retrieve/Quit</p> <ul style="list-style-type: none"> A. Open and name a file _____ B. Retrieve a file _____ C. Quit/Exit a file _____ <p>III. Cursor Movement</p> <ul style="list-style-type: none"> A. Use arrow key _____ B. Use GOTO functions _____ C. Use special key combinations _____ <p>IV. Define Database Structure</p> <ul style="list-style-type: none"> A. Name a file _____ <ul style="list-style-type: none"> 1. Enter field name _____ 2. Enter field type/attribute _____ 3. Enter field size/length _____ 4. Enter decimal places _____ <p>V. Data Entry</p> <ul style="list-style-type: none"> A. Enter characters _____ B. Enter values/numbers _____ C. Enter dates _____ D. Enter time _____ E. Enter logic _____ F. Correct data entry errors _____ <p>VI. Format Cells</p> <ul style="list-style-type: none"> A. Format Currency _____ B. Format to percentage _____ C. Format to _____ D. Format to floating point _____ <p>VII. Edit/Revise/Change</p> <ul style="list-style-type: none"> A. Modify structure _____ B. Delete records _____ C. Delete fields _____ D. Add records _____ E. Add fields _____ F. Insert fields _____ G. Insert/Append records _____ H. Edit records/fields _____ <ul style="list-style-type: none"> I. Clear/Erase entire template _____ J. Replace data _____ | <p>VIII. Search Find/Locate</p> <ul style="list-style-type: none"> A. Single search field/criterion _____ B. Multiple search fields/criteria _____ <p>IX. Sort/Index</p> <ul style="list-style-type: none"> A. Sort, alphabetic/ascending _____ B. Sort, Descending _____ C. Use one sort key _____ D. Use multiple sort keys _____ E. Index a file _____ <p>VII. Edit/Revise/Change</p> <ul style="list-style-type: none"> A. Modify structure _____ B. Delete records _____ C. Delete fields _____ D. Add records _____ E. Add fields _____ F. Insert fields _____ G. Insert/Append records _____ H. Edit records/fields _____ <ul style="list-style-type: none"> I. Clear/Erase entire template _____ J. Replace data _____ <p>X. Special Commands/Features</p> <ul style="list-style-type: none"> A. Use password protection _____ B. Use calculated fields _____ <p>XI. Displays/List Data Non-Report Format</p> <ul style="list-style-type: none"> A. Display/List all to screen _____ B. Display/List all to printer _____ C. Display/List selected data _____ D. Display/List selected data to printer _____ <p>XIII. Label/Report Generation</p> <ul style="list-style-type: none"> A. Print Labels _____ B. Print a report with totals _____ C. Print a report with subtotals _____ D. Print a report with selected fields or criteria _____ E. Enter a report heading _____ F. Layout a report in an appropriate format _____ G. Print a report in sorted order _____ H. Print a report to the screen _____ <p>XIII. Printing</p> <ul style="list-style-type: none"> A. Turn on/off compressed print _____ B. Turn on/off _____ C. Use print screen _____ |
|---|--|

Desktop Publishing

Learning Style Field Review Activities

DESKTOP PUBLISHING

COMPETENCIES:

ACTIVITY NAME: CREATE YOUR OWN PUZZLE

LEARNING STYLE STRATEGY:	Game-making (?)
PERCEPTUAL STRENGTHS:	Tactile/Visual
ACTIVITY DYNAMICS:	Small Group
STUDENT OUTCOME:	The student will be able identify desktop publishing terminology.
SUMMARY:	The students should be given a copy of terminology concerning desktop publishing. They will then devise their own puzzle (in groups of two at a computer) using as many words as they can. Students will review terminology by solving another group's puzzle.
SUGGESTED MODIFICATIONS:	Utilize a software package such as <i>Puzzle Works</i> , etc. instead of creating a puzzle from scratch.
TEACHER PREPARATION:	
Supplies:	Secure puzzle software.
Preparations:	Provide list of terminology Provide ample time for class to complete puzzle. Provide key for prepared puzzle

Learning Style Field Review Activities

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO:

EVALUATION:

Provide a matching exam to test knowledge of terminology

ANSWER KEY:

Print out with the puzzle software.

TIME FRAME:

One class period.

SCANS:

Reading.

TAAS:

Writing and reading.

COMMON EE'S:

Start and finish on time (2)(E) and (2)(F) pride in work.

Learning Style Field Review Activities

DESKTOP PUBLISHING

COMPETENCY #2.

ACTIVITY NAME: ADDING PIZAZZ TO A PAGE

LEARNING STYLE STRATEGY:	Mnemonics (Acronyms)/Memory Aids
PERCEPTUAL STRENGTHS:	Tactile, Visual, Auditory
ACTIVITY DYNAMICS:	Small groups or individual
STUDENT OUTCOME:	The student will be able to use creativity to create a memory aid (acronym) which can be displayed to help him/her remember what the unit is and that everything that is done has to do with that procedure.
SUMMARY:	The student will be assigned either to a group or will be allowed to decide that he/she prefers to work individually. The assignment will be to create an acronym for the word DESKTOP. The teacher will probably want to display this throughout the unit.
SUGGESTED MODIFICATIONS:	For the tactile learner: Let them cut the letters out for display on the bulletin board. They may have the option of doing this after school (for extra credit), if they wish.
TEACHER PREPARATION:	
Supplies:	Construction paper (or similar materials) if wish to have students display.
Preparation:	Allow time for project Assign groups Allow time for the tactile learners to come in to create displayed acronym
MEANS OF ASSESSMENT:	
CONTRIBUTION TO PORTFOLIO:	
EVALUATION:	Students will write short paragraph explaining basic goal of DTP

Learning Style Field Review Activities

ANSWER KEY:

Suggested solution:

D esigning an
E xtra
S pecial
"K ick"
T o an
O therwise
P lain and dull page

TIME FRAME:

SCANS:

Interpersonal information.

TAAS:

Reading and writing

COMMON EE'S:

Learning Style Field Review Activities

DESKTOP PUBLISHING

COMPETENCY

Historical development of desktop publishing.

ACTIVITY NAME: Back in Time

LEARNING STYLE STRATEGY:	Role Play
PERCEPTUAL STRENGTHS::	Kinesthetic, Tactile, Auditory, Visual
ACTIVITY DYNAMICS:	Small Group
STUDENT OUTCOMES:	Students will be able to recognize background and history of desktop publishing.
SUMMARY:	A team-learning project consisting of researching, writing, role-playing, and presenting of role play. The project will allow students to use many skills and to allow for all perceptual strengths.
SUGGESTED MODIFICATIONS:	Video the presentation for use in other course sections for further knowledge (and for critique). There could be an Oscars contest (voting by the classes) to determine which movie would win the award.
TEACHER PREPARATION:	Present the material for the History of Desktop Publishing
Supplies:	Materials for creating costumes (if desired) Materials for any prop (depending on the extent of the presentation) Camcorder (if wish to video the presentation) and video tape.
Preparation:	
MEANS OF ASSESSMENT:	
CONTRIBUTION TO PORTFOLIO:	
EVALUATION:	Have students fill in a time-line type exam with dates, events, etc. of Desktop Publishing.

Learning Style Field Review Activities

ANSWER KEY:

TIME FRAME:

SCANS:

Reading, writing speaking, creative thinking,
decision making, problem solving, sociability.

TAAS:

Language arts #3,4,5
Science #23
Social Studies #13
75.48 #15, 16, 20
75.68 #4, 5

COMMON EE'S:

1A
(a)(2)(C) (H)
(a)(5)(F)

Learning Style Field Review Activities

DESKTOP PUBLISHING

COMPETENCY

3: Comparison of traditional publishing and desktop publishing methods.

ACTIVITY NAME: We've Come A Long Way, Baby

LEARNING STYLE STRATEGY:	Venn Diagram
PERCEPTUAL STRENGTHS:	Tactile, Visual, Auditory
ACTIVITY DYNAMICS:	Individual
STUDENT OUTCOMES:	Students will be able to compare traditional publishing and newer desktop publishing methods and be able to design a publication using both methods.
SUMMARY:	Show several samples, discuss, and then demonstrate both the traditional and the desktop publishing methods. After discussion of traditional and desktop publishing methods and results, ask students to fill in the diagram (Venn) of what they think should be included in each section.
MODIFICATIONS:	Might use an overhead with a transparency of a blank Venn diagram and fill in the areas as the students call out what they have put into their diagrams.
TEACHER PREPARATION:	
Supplies and Preparations:	Prepare copies of a blank Venn diagrams for students. Prepare a blank Venn diagram on a transparency film.
MEANS OF ASSESSMENT:	
CONTRIBUTION TO PORTFOLIO:	
EVALUATION:	Circle of Knowledge for review and testing.

Learning Style Field Review Activities

ANSWER KEY:

TIME FRAME:

SCANS:

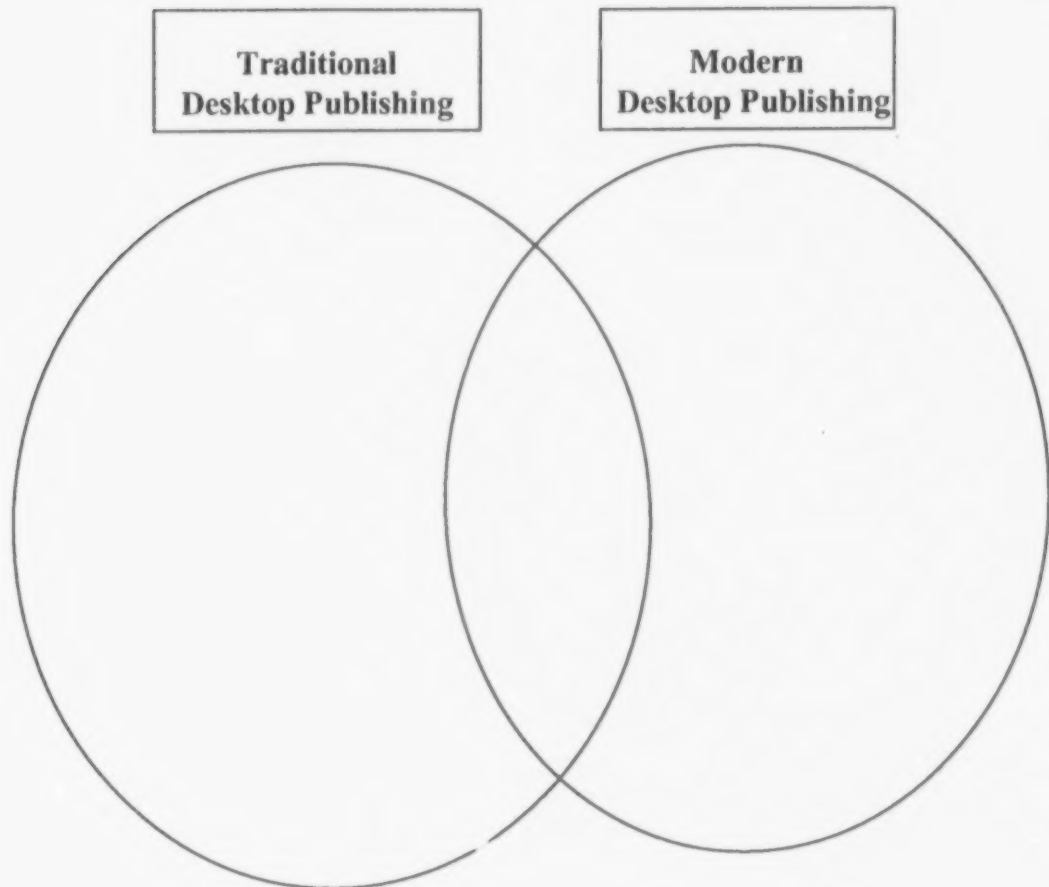
Resources, information, and inter-personal.

TAAS:

COMMON F E'S:

Learning Style Field Review Activities

Desktop Publishing Venn Diagram



Learning Style Field Review Activities

DESKTOP PUBLISHING

COMPETENCY

4: Identify components of desktop publishing.

ACTIVITY NAME: Components of DTP-Looney Tunes?

LEARNING STYLE STRATEGY:	Visual Cues
PERCEPTUAL STRATEGY:	Kinesthetic, Tactile, Visual,
ACTIVITY DYNAMICS:	Group or individual
STUDENT OUTCOME:	Students will be able to remember the components of DTP because they have been able to learn about them using several different learning styles.
SUMMARY:	This activity is designed for group learning using visual cues. In a group (or individually if preferred), students will create a cartoon of each software and hardware component of DTP. Some (or all) of these can be put on the bulletin board for display during this unit. Teachers: Allow the students who prefer tactile learning to prepare these for display on the bulletin boards.
AN EXAMPLE MIGHT BE:	To draw cartoon pictures of the computer, monitor, and printer (with faces and arms and legs) and have them to look compatible by holding hands. Label each so that the compatibility will be obvious to the purpose of unit objective.
MODIFICATIONS:	Might want to have a contest for the best cartoon.
TEACHER PREPARATION:	Secure pictures and articles about the components, enough material for the students to be able to know clearly what all the components are. Prepare a place on the bulletin boards for the finished products. Provide prizes if you have a contest for the best cartoon.

Learning Style Field Review Activities

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO:

EVALUATION:

ANSWER KEY:

TIME FRAME:

SCANS:

Interpersonal

TAAS:

Writing and Reading

COMMON EE'S:

Leadership

Learning Style Field Review Activities

DESKTOP PUBLISHING

COMPETENCY #5

ACTIVITY 4: COMPONENTS OF DTP-SHOP 'TILL YOU DROP

LEARNING STYLE STRATEGY:	Simulation
PERCEPTUAL STRATEGY:	Kinesthetic, Tactile, Visual, Auditory
ACTIVITY DYNAMICS:	Group
STUDENT OUTCOME:	The students will be able to know various software programs they can use in DTP.
SUMMARY:	(This activity could be the same as on page 608 of the current BCA I curriculum guide)
INSTRUCTIONS:	You will be given two purchase authorizations: one for \$3,000 and one for \$10,000 to purchase two DTP publishing systems. Investigate available hardware and software through the use of periodicals, visits to local computer stores, writing to major companies, and other resources. Using both of the allotted amounts provided, select the components of a DTP system that will meet each budget. Verify your selections by including pictures of the components and by supplying prices and other specifications.
MODIFICATIONS:	Students may want to shop in trade journals instead of going into actual stores. Or: Have a vendor come into the classroom as a classroom presenter (and demo software to students)
NOTE:	A short group role play could follow this if time allows.
TEACHER PREPARATION:	Make arrangements for fieldtrip or visit from vendor Provide trade journals with prices, etc. Allow ample time.
MEANS OF ASSESSMENT:	
CONTRIBUTION TO PORTFOLIO:	

Learning Style Field Review Activities

EVALUATION:

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

Writing and reading.

COMMON EE'S:

Learning Style Field Review Activities

DESKTOP PUBLISHING

COMPETENCIES:

- Competency 6:** List 8 basic areas of planning to consider when preparing a graphics document for desktop publishing.
- Competency 7:** List the guidelines for working with various graphic representations.

ACTIVITY NAME: Plan Carefully, NOW!

LEARNING STYLE STRATEGY: Brainstorm, small group

PERCEPTUAL STRATEGY: Visual and Auditory

ACTIVITY DYNAMICS: Small group

STUDENT OUTCOME:

SUMMARY: In order for the students to plan a document, the following steps should be followed:

Brainstorm
Recorder reads all ideas back
Group decides which ones to use
Group states eight basic areas of planning and then..
Group implements those areas into the guidelines for working with various graphics representations in planning the creation of a document.

TEACHER PREPARATION: Materials for research as necessary

NOTE: Be sure to stress that the activities accomplished for this project will be put to actual use in the following project. Save materials.

MEANS OF ASSESSMENT:

CONTRIBUTION TO PORTFOLIO:

EVALUATION: Circle of Knowledge for review

Learning Style Field Review Activities

ANSWER KEY:

TIME FRAME:

SCANS:

Technology

TAAS:

Math

COMMON EE'S:

Successful employment.

Learning Style Field Review Activities

DESKTOP PUBLISHING

COMPETENCY 8

ACTIVITY NAME: PRODUCTION/DTP-SIMULATION

AT LAST! I GET TO CREATE MY OWN DTP PROJECT!

LEARNING STYLE STRATEGY: Team or individual—using the planning completed in other project.

PERCEPTUAL STRATEGY: Kinesthetic and Tactile

STUDENT OUTCOME:

ACTIVITY DYNAMICS:

PROJECT 1: Use the page layout prepared in Activity 5 and develop the plan on the computer. Use appropriate graphics/clip art program provided by teacher. Print a copy.

PROJECT 2: (optional) Each student will develop and produce (same as Activities 5 and 6) a complete DTP project beginning with the writing down of the planning and guidelines, sketching of the layout to the finished printed project. Each student will use own creative ideas.

MEANS OF ASSESSMENT: Guidelines of the Business Professionals of America CEG.

CONTRIBUTION TO PORTFOLIO: Final desktop publishing project.

EVALUATION: To the satisfaction of the instructor. Use guidelines in the Business Professionals of America CEG.

ANSWER KEY:

TIME FRAME:

SCANS:

Learning Style Field Review Activities

TAAS:

COMMON EE'S:

Graphics

Learning Style Field Review Activities

GRAPHICS

COMPETENCY 1

ACTIVITY NAME: Graphic terminology

LEARNING STYLE STRATEGY:	Game
PREFERENCE STYLE:	Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Individual and/or Pairs
STUDENT OUTCOME:	The student will demonstrate proficiency in graphic terminology.
SUMMARY:	The students will demonstrate proficiency by defining the terms using cards with the term on one side and definition on the other side.
SUGGESTED MODIFICATIONS:	The students may given the terms by teacher and they can write the definitions.
TEACHER PREPARATION:	
Supplies and Materials Needed:	3 x 5 notecards.
Step-By-Step Preparations:	The teacher will prepare cards with terms on one side and definition on the other side of the card.
MEANS OF ASSESSMENT:	The student(s) will refer to teacher for evaluation on the terminology.
CONTRIBUTION TO PORTFOLIO:	The students will keep terms in notebook under Graphics section.
EVALUATION:	Teacher will evaluate the answers by having students test each other with the notecards or a terminology quiz.
ANSWER KEY:	Students will develop.
TIME FRAME:	One day.

Learning Style Field Review Activities

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

GRAPHICS

COMPETENCY 2

ACTIVITY NAME: Basic and important graphic concepts.

LEARNING STYLE STRATEGY:	Mnemonic
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group, Individual, or Pairs
STUDENT OUTCOME:	The student will demonstrate proficiency in graphic concepts.
SUMMARY:	The students will demonstrate proficiency by describing the terms using mnemonics.
SUGGESTED MODIFICATIONS:	The students may given the concepts by teacher and student can choose to describe the concepts using posters, computer generated work, or teacher accepted project.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Posters or construction paper.
Step-By-Step Preparations:	The teacher will prepare cards with terms on one side and definition on the other side of the card.
MEANS OF ASSESSMENT:	The student(s) will refer to teacher for evaluation on the concepts or refer concepts information sheet. (Concepts sheet is part of this unit)
CONTRIBUTION TO PORTFOLIO:	The students will keep concepts in notebook under Graphics section.
EVALUATION:	Teacher will evaluate the answers by having students turn in the mnemonics project as a group or individual.
ANSWER KEY:	Students will develop.
TIME FRAME:	Two days.
SCANS:	
TAAS:	
COMMON EE'S:	

Learning Style Field Review Activities

GRAPHICS

COMPETENCY 3

ACTIVITY NAME: Presentation graphics vs. free graphics

LEARNING STYLE STRATEGY:	Circle of Knowledge
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group and/or Individual
STUDENT OUTCOME:	The student will demonstrate discussing the differences between presentation and free graphics.
SUMMARY:	The students will demonstrate proficiency in discussing the differences between presentation and free graphics by brainstorming in groups to see what the students know.
SUGGESTED MODIFICATIONS:	The students may do this project individually by writing the differences or illustrate differences using the computer.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Computer and software. Secure examples from Graphics section.
Step-By-Step Preparations:	The teacher will evaluate circle of knowledge group responses.
MEANS OF ASSESSMENT:	The student(s) will refer to teacher for evaluation on the group discussions.
CONTRIBUTION TO PORTFOLIO:	The students will keep group or individual responses of graphics differences in notebook under Graphics section.
EVALUATION:	Teacher will evaluate the answers.
ANSWER KEY:	Refer to presentation section
TIME FRAME:	Three days.

Learning Style Field Review Activities

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

GRAPHICS

COMPETENCY 4

ACTIVITY NAME: Types of graphics with types of information appropriate for demonstration with those graphics.

LEARNING STYLE STRATEGY:	Mind Mapping
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Individual
STUDENT OUTCOME:	The student will demonstrate proficiency in analyzing types of graphics with types of information appropriate for demonstration with those graphics.
SUMMARY:	The students will demonstrate proficiency in analyzing the types of graphics by investigating three software packages and using the VENN Diagram for analysis.
SUGGESTED MODIFICATIONS:	The students may do this as oral presentation, written, or computer generated.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Three different graphic software if available. If software is not available then library research or computer magazines may be used.
Step-By-Step Preparations:	Develop three sample comparisons as an example using a Venn diagram.
MEANS OF ASSESSMENT:	The student(s) will refer to teacher for evaluation.
CONTRIBUTION TO PORTFOLIO:	The students will keep diagram in notebook under Graphics section.
EVALUATION:	Teacher will evaluate the diagrams.
ANSWER KEY:	Software Facts.
TIME FRAME:	Three to four weeks.

Learning Style Field Review Activities

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

GRAPHICS

COMPETENCY 5

ACTIVITY NAME: Hardware and software graphic comparisons

LEARNING STYLE STRATEGY:	Mind Mapping
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group and/or Individual
STUDENT OUTCOME:	The student will demonstrate proficiency in comparisons of hardware and graphic software.
SUMMARY:	The students will demonstrate proficiency in hardware and graphic software comparisons using the VENN diagram.
SUGGESTED MODIFICATIONS:	The students may use colored paper or markers and put on poster board.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Posters, markers, computer, software, and computer references.
Step-By-Step Preparations:	The teacher will provide computer magazines and other resources.
MEANS OF ASSESSMENT:	The student(s) will refer to teacher for evaluation.
CONTRIBUTION TO PORTFOLIO:	The students will keep comparisons sheet or VENN diagram in notebook under Graphics section.
EVALUATION:	Teacher will evaluate the diagrams.
ANSWER KEY:	The computer resources can serve as a guide for evaluation.
TIME FRAME:	One week

Learning Style Field Review Activities

SCANS:

TAAS:

COMMON EE'S:

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9-Graphics

Learning Style Field Review Activities

GRAPHICS

COMPETENCY 6

ACTIVITY NAME: Graphic Images

LEARNING STYLE STRATEGY:	Simulation
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group and/or Individual
STUDENT OUTCOME:	The student will demonstrate proficiency in graphic image generation.
SUMMARY:	The students will demonstrate proficiency by graphic generation by using competencies 4 and 5. This project may be done by a team but each person is given a job, duty and description. The grade is a group grade and individual grade.
SUGGESTED MODIFICATIONS:	The students may use the computer generated graphics and place them on posters or mini portfolio.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Graphics software, posters, and manila folders.
Step-By-Step Preparations:	The teacher will develop a criteria sheet for graphics project or use the desktop publishing evaluation sheet from the Business Professionals of America CEG as an example)
MEANS OF ASSESSMENT:	The student(s) will refer to teacher for evaluation.
CONTRIBUTION TO PORTFOLIO:	The students will keep graphics project in the note-book under Graphics section.
EVALUATION:	Teacher will evaluate the project by using the criteria sheet.
ANSWER KEY:	Students will develop.
TIME FRAME:	Three to four weeks.

Learning Style Field Review Activities

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

GRAPHICS

COMPETENCY 7

ACTIVITY NAME: Tools for preparing information for mass distribution including graphics.

LEARNING STYLE STRATEGY:	Metaphor
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group and/or Individual
STUDENT OUTCOME:	The student will demonstrate proficiency in identifying tools for preparing information for mass distribution including graphics. Group will list tools.
SUMMARY:	The students will demonstrate proficiency in identifying tools. Students may use metaphor. Example: A pen is like a paint brush to an artist.
SUGGESTED MODIFICATIONS:	The students may do this as a group or individual.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Magazines for picture cutouts, posters, markers, construction paper, and graphics software.
Step-By-Step Preparations:	The teacher will assign tool(s) to groups or individuals.
MEANS OF ASSESSMENT:	The student(s) will refer to teacher for evaluation on the tools.
CONTRIBUTION TO PORTFOLIO:	The students will keep tool project in notebook under Graphics section.
EVALUATION:	Teacher will evaluate the project referring the tools in graphics section.
ANSWER KEY:	Graphics section
TIME FRAME:	Four days

Learning Style Field Review Activities

SCANS:

TAAS:

COMMON EE'S:

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Telecommunications

Learning Style Field Review Activities

TELECOMMUNICATIONS

COMPETENCY: 1

ACTIVITY NAME: "TELE" Crossword Puzzle

LEARNING STYLE STRATEGY:	Networking
PREFERENCE STYLE:	Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Individual or Pairs
STUDENT OUTCOME:	The student will demonstrate proficiency in telecommunications terminology.
SUMMARY:	The students will create their own crossword puzzles or they can use the computer "Puzzle Works" and "Mindscape".
SUGGESTED MODIFICATIONS:	They can manually do the puzzles. Provide an outline of puzzle generated by computer. Colored paper for cross word puzzle or colored ribbon.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Software- <i>Puzzle Works</i> or <i>Mindscape</i> . Paper and pen.
Step-By-Step Preparations:	1. Manual crosswords-The student will develop the puzzle using telecommunications. 2. Computer-The student will develop the puzzle upside the Telecommunication terms. 3. Manual or computer will exchange puzzles and each student will work on a crossword puzzle that work on a crossword puzzle that is not theirs because of exchange.
MEANS OF ASSESSMENT:	The student(s) developing the puzzle will incorporate their blank puzzle and key to teacher. The students will use blank copies to work on puzzle.
CONTRIBUTION TO PORTFOLIO:	Keep puzzle in a notebook under Telecommunications section.
EVALUATION:	Teacher will evaluate the answers on the puzzle by the answer key provided by students.

Learning Style Field Review Activities

ANSWER KEY:

Students will develop.

TIME FRAME:

Two days.

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

TELECOMMUNICATIONS

COMPETENCY

ACTIVITY NAME: Memory Box Definitions

LEARNING STYLE STRATEGY:	Visual Cues
PREFERENCE STYLE:	Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Pairs
STUDENT OUTCOME:	The student will demonstrate proficiency in telecommunications terminology.
SUMMARY:	The students will demonstrate proficiency in telecommunications terminology using 3 x 5 cards.
SUGGESTED MODIFICATIONS:	The students will use the memory box. Cards will have a definition/picture on one side and on the other side of the card the definition. The cards may be produced in colored paper.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Memory box.. Provide a term and definition reference sheet.
Step-By-Step Preparations:	The students will insert the card at top and will get the answer when it comes out at the bottom.
MEANS OF ASSESSMENT:	The student(s) using the memory box will record their answers and on paper and turn in to teacher.
CONTRIBUTION TO PORTFOLIO:	Students will keep terms that are used in the memory box in a notebook under Telecommunications section.
EVALUATION:	Teacher will evaluate the answers on the sheet the students turn in. The teacher may turn it back to the student have the students record the term or definition which ever is appropriate.

Learning Style Field Review Activities

ANSWER KEY:

Teacher may use key provided.

TIME FRAME:

One day.

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

TELECOMMUNICATIONS

COMPETENCY:

ACTIVITY NAME: Telecommunications Development

LEARNING STYLE STRATEGY:	Visual Cues
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Large Group, Small Group, Individual Pairs, Other _____
STUDENT OUTCOME:	The student will demonstrate knowledge of the development of telecommunications.
SUMMARY:	The students will demonstrate knowledge of the development in telecommunications. They can draw a picture associated with the date.
SUGGESTED MODIFICATIONS:	The students will draw a picture associated with the date and have them put on the walls/repeat dates or pick a date and have them put on the walls/repeat dates or pick a date.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Construction or poster paper, markers, pens, pencils, and tape.
Step-By-Step Preparations:	The students will draw pictures denoting the era. Secure listing from Telecommunications Unit from <i>Business Computer Applications Teacher's Guide</i> .
MEANS OF ASSESSMENT:	The student(s) will use posters or construction paper to depict the development of telecommunications.
CONTRIBUTION TO PORTFOLIO:	Students will keep the history development sheet in a notebook under Telecommunications section.
EVALUATION:	Teacher will evaluate the drawings the students turn in.
ANSWER KEY:	Teacher may use key provided.
TIME FRAME:	Two days
SCANS:	
TAAS:	
COMMON EE'S:	

Learning Style Field Review Activities

TELECOMMUNICATIONS

COMPETENCY 2

ACTIVITY NAME: Role-Play Era

LEARNING STYLE STRATEGY:	Role-play
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group and/or Individual
STUDENT OUTCOME:	The student will demonstrate knowledge of the development of telecommunications.
SUMMARY:	The students will demonstrate knowledge in telecommunications development by role-playing the era.
SUGGESTED MODIFICATIONS:	The students will use props, costumes, or play out the era.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Costumes or props pertinent to the era. Teacher may provide costumes, hats, or props.
Step-By-Step Preparations:	The students will use approximately 10 minutes to do role-playing.
MEANS OF ASSESSMENT:	The student(s) in the audience will write down the era when an individual or group role-plays the era..
CONTRIBUTION TO PORTFOLIO:	Students will keep development handout in a notebook under Telecommunications section.
EVALUATION:	Teacher will evaluate the answers on the sheet the students turn in. The teacher will also evaluate the role-playing. The criteria may be on costume, creativity, appropriateness to the era.
ANSWER KEY:	Teacher may use development sheet provided.
TIME FRAME:	Three day.
SCANS:	
TAAS:	
COMMON EE'S:	

Learning Style Field Review Activities

TELECOMMUNICATIONS

COMPETENCY 3

ACTIVITY NAME: Compare/Contrast modems.

LEARNING STYLE STRATEGY:	Visual Cues
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group
STUDENT OUTCOME:	The student will compare and contrast types of modems.
SUMMARY:	The students will demonstrate the difference in modems by using small groups of records or using a mnemonic project.
SUGGESTED MODIFICATIONS:	The students will form small groups and list at least three characteristics of modems. The mnemonic project can be done on colored construction paper and markers.
TEACHER PREPARATION:	
Supplies needed:	Construction paper, markers, notebook paper.
MEANS OF ASSESSMENT:	The student will do the circle of knowledge in the compare and contrast project and the group with longest list wins. The mnemonic project can be turned to teacher or displayed on the bulletin board.
CONTRIBUTION TO PORTFOLIO:	Students will keep list or mnemonic project in note-book under Telecommunications.
EVALUATION:	Teacher will evaluate the list of comparisons and mnemonic projects.
SCANS:	
TAAS:	
COMMON EE'S:	

Learning Style Field Review Activities

TELECOMMUNICATIONS

COMPETENCY 4

ACTIVITY NAME: Software packages comparisons

LEARNING STYLE STRATEGY:	Mind Mapping
PREFERENCE STYLE:	Kinesthetic, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group and/or Individual
STUDENT OUTCOME:	The student will demonstrate proficiency in telecommunications software comparisons.
SUMMARY:	The students will explain comparisons of data communication software.
SUGGESTED MODIFICATIONS:	Students may use magazines or newspapers to illustrate the differences.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Magazines, Newspapers, construction paper, and markers.
MEANS OF ASSESSMENT:	The student(s) developing the comparisons will write a paper or develop posters.
CONTRIBUTION TO PORTFOLIO:	Keep comparison sheet in a notebook under Telecommunications section.
EVALUATION:	Teacher will evaluate the answers from the comparison sheets.
ANSWER KEY:	Students will develop.
TIME FRAME:	Two days
SCANS:	
TAAS:	
COMMON EE'S:	

Learning Style Field Review Activities

TELECOMMUNICATIONS

COMPETENCY 5

ACTIVITY NAME: Uploading/downloading, which way do I go?

LEARNING STYLE STRATEGY:	Role play
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group
STUDENT OUTCOME:	The student will demonstrate proficiency in procedures or steps in downloading and uploading.
SUMMARY:	The students will create a human component to illustrate the steps.
SUGGESTED MODIFICATIONS:	The students may write the steps down or be creative and put the steps on posters.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Posters, construction paper, markers, computer demonstration and software.
Step-By-Step Preparations:	1. The students will develop the steps and designate members of the group to do the human component illustration. 2. Computer-The student will demonstrate the steps in uploading and downloading.
MEANS OF ASSESSMENT:	The student(s) developing human component will demonstrate the steps in front of the class for teacher evaluation.
CONTRIBUTION TO PORTFOLIO:	The student will keep the step or procedures written assignment in a notebook under Telecommunications section.
EVALUATION:	Teacher will evaluate the answers on the hand written, computer copy, demonstration on the computer or human component.

Learning Style Field Review Activities

ANSWER KEY:

Found in the answer section of BCA
Telecommunications Unit.

TIME FRAME:

Three days.

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

TELECOMMUNICATIONS

COMPETENCY 6

ACTIVITY NAME: Teleconferencing and Bulletin Board comparisons

LEARNING STYLE STRATEGY:	Mind Webbing
PREFERENCE STYLE:	Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group
STUDENT OUTCOME:	The student will demonstrate proficiency in comparisons of teleconferencing and Bulletin Boards.
SUMMARY:	The students will form small groups or individually list features and compare.
SUGGESTED MODIFICATIONS:	The students will need to research the systems. Library time may be allotted.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Computer Magazines, paper, and computer access.
Step-By-Step Preparations:	1. Library research may be necessary. 2. Computer-The student access various teleconferencing or bulletin board systems.
MEANS OF ASSESSMENT:	The student(s) will list comparisons for teacher evaluation.
CONTRIBUTION TO PORTFOLIO:	The students will keep their comparison list in the notebook under Telecommunications section.
EVALUATION:	Teacher will evaluate the list and the key will be provided by students.
ANSWER KEY:	Students will develop.
TIME FRAME:	Two days.

Learning Style Field Review Activities

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

TELECOMMUNICATIONS

COMPETENCY 7

ACTIVITY NAME: Identify Network configurations

LEARNING STYLE STRATEGY:	Role Play or Bingo
PREFERENCE STYLE:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Individual
STUDENT OUTCOME:	The student will demonstrate proficiency in telecommunications network configurations.
SUMMARY:	The students will demonstrate proficiency by role playing the concepts or playing a game of bingo. The student will stand up and yell bingo or network.
SUGGESTED MODIFICATIONS:	The students may write the comparisons or use the computer.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Computer magazines or computer text. Develop bingo cards with variety of answers for bingo game.
Step-By-Step Preparations:	1. Construct bingo cards with a listing of terms. 2. Make a least eight variety cards. 3. The teacher will call out the definition and the student will put an x or use a bean or slot to cover the term. 4. You may play regular bingo or black out. 5. The winner(s) may earn a point to their next test grade or 100 daily grade.
MEANS OF ASSESSMENT:	The student(s) will refer to teacher for evaluation on the bingo games.
CONTRIBUTION TO PORTFOLIO:	The students will keep terms in notebook under Telecommunications section.
EVALUATION:	Teacher will evaluate the answers on the bingo cards and role playing.
ANSWER KEY:	Students will develop.
TIME FRAME:	Two days.

Learning Style Field Review Activities

SCANS:

TAAS:

COMMON EE'S:

Social Implications

Learning Style Field Review Activities

SOCIAL IMPLICATIONS

Competency:

1. Identify terminology related to computer crime and computer users.

ACTIVITY NAME: Computer Crime and Computer User Terminology

LEARNING STYLE STRATEGY:	Case Study/Simulation
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group, Individual, and/or Pairs
STUDENT OUTCOME:	Student will be able to recognize and use terminology regarding social implications of computer usage.
SUMMARY:	Terminology can be learned through simulations. Putting crimes together as case studies or through a Crime Card Game.
SUGGESTED MODIFICATIONS:	A matching card game could be used. Using 48 plain-paper playing cards, the new terms could be put on 24 of the cards. Then each student will select a term and write the definition on a blank term—making sure not to use the term. The class can be split into teams of 4, 6, or 8 members and make the needed number of card decks. Once all definitions have been written, all 48 cards are shuffled and dealt to students on the team. In a clockwise motion or at random, students keep drawing one card from another student. As the students have words and definitions match, they lay down the matched pairs. The purpose of this game is to be out of cards first. This game is similar to "Old Maid." (Ken Kaser, President of Mt. Plains)
TEACHER PREPARATION:	
Supplies and Materials Needed:	A list of the terminology from Social Implications in BCA Teacher's Guide. Or if you are using the card game you will need 3 x 5 cards, markers or papers cut to the is size. Design the card game similar to the game of WAR. (Most Hoyle card game books contain the rules.) Instead of words, pictures illustrating the viruses or terms could be used.

Learning Style Field Review Activities

Step-by-step preparations:

Provide students with terms for both case study and the card game.

Retain the sets of cards for later use for review before a mid-term or for use for another year. You may wish to laminate the cards. To keep the sets of cards separate you may wish to color code them. Numbers could also be assigned to each term then both the card containing the definition and the term. These suggestions would work with the suggested modification.

ASSESSMENT/EVALUATION:

Active participation in the activities.

CONTRIBUTION TO PORTFOLIO:

ANSWER KEY:

TIME FRAME:

One period to make the cards game sets

SCANS:

TAAS:

Reading and writing

COMMON EE'S:

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Learning Style Field Review Activities

SOCIAL IMPLICATIONS

Competency:

2: Identify the major issues related to computers and society.

ACTIVITY NAME: Computer Viruses

LEARNING STYLE STRATEGY:	Case Study
PERCEPTUAL STRENGTHS:	Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group, Individual, Pairs
STUDENT OUTCOME:	Students will be able to understand and recognize computer crimes; what viruses do their computer systems; and how to prevent them from happening
SUMMARY:	Divide your students into two large groups, then subdivide into smaller groups. Assign one large group to work on computer viruses, prevention, and cures. The other group will do research on computer crime and piracy and collect information on how these crimes have been prosecuted. Have students use their creativity to present information to the class.
SUGGESTED MODIFICATIONS:	The group with viruses may wish to develop a card game or matching. They may develop a game similar to Scategories.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Provide a beginning listing of the types of viruses.
Step-by-step preparations:	Have students research and come up with a new list of computer viruses, causes, cures, and prevention. Maybe have competition to see who can find the most. Have them present ways of preventing infections. Have students research computer crime and piracy. Have them prepare case studies that follow-up on the situations that developed including prosecution.
ASSESSMENT/EVALUATION:	
CONTRIBUTION TO PORTFOLIO:	223

Learning Style Field Review Activities

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Types of Computer Crime

<u>Crime</u>	<u>Definition</u>
Sabotage	Crime that physically damages hardware or software.
Theft of Service	Crime that involves using company computer time, services, or equipment, for personal gain.
Property Crimes	Stealing computer hardware or software; stealing merchandise by manipulating files in a computer.
Financial Crimes	Crime that uses computer hardware and software to manipulate financial data for the benefit of the perpetrator.

Federal Privacy Laws

- **The Freedom of Information Act of 1970**
Allows individuals to gain access to data about themselves in files collected by federal agencies.
- **The Privacy Act of 1974**
Protects the privacy of individuals identified in information systems maintained by the federal government.
- **The Family Educational Rights and Privacy Act of 1974**
Protects the privacy of students involved with public and private educational institutions at all levels.
- **The Right to Financial Act of 1978**
Limits governmental access to the customer records of financial institutions.
- **The Electronic Funds Transfer Act of 1980**
Protects the privacy of customer's accounts in financial institutions.
- **The Electronic Communications Privacy Act of 1986**
Protects the privacy of messages transmitted electronically.

Learning Style Field Review Activities

SOCIAL IMPLICATIONS

Competency:

3. Describe the ethical and legal issues that have arisen as a result of the computer revolution.

ACTIVITY NAME: Hacking Can Be Dangerous

LEARNING STYLE STRATEGY:	Brainstorming, Critical Analysis
PERCEPTUAL STRENGTHS:	Visual, and Auditory
ACTIVITY DYNAMICS:	Large group, Small group, pairs
STUDENT OUTCOME:	Students will be able to recognize ethical and legal issues involved with computer technology and will be able to avoid being involved in these types of situations.
SUMMARY:	Utilizing either or both of the videos <i>War Games</i> or <i>Sneakers</i> have students debate the legal and ethical issues involved in the story lines.
SUGGESTED MODIFICATIONS:	Use both movies at different times of the year.
TEACHER PREPARATION:	
Supplies and Materials Needed:	Secure videos and VCR.
Step-by-step preparations:	1. Preview the videos if you have not already seen them. 2. Prepare a listing of the major points you wish the students to debate but do not provide them with the list. 3. Have students brainstorm the issues. Once the issues have been pulled out, have them break into groups. Allow them to select their issues (have them draw or pick a number, etc.) and also pick out whether they will be defending or supporting the motion.

Learning Style Field Review Activities

4. Allow groups time to complete further research or to utilize the information they found in Activity 2.
5. Have the small groups put on debates for the rest of the class.

ASSESSMENT/EVALUATION:

Have the rest of the class act as judge and jury to see which side has presented a stronger case.

CONTRIBUTION TO PORTFOLIO:

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

SOCIAL IMPLICATIONS

Competency:

4. Identify privacy issues involved with electronic data storage.

ACTIVITY NAME:

LEARNING STYLE STRATEGY:	Role play, simulation
PERCEPTUAL STRENGTHS:	Kinesthetic, Tactile, Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group, Large Group, Individual
STUDENT OUTCOME:	Student will be able to recognize privacy issues involved with electronic data storage and be prepared to deal with the issues should one present itself.
SUMMARY:	Students will present a talk-show of the privacy issues. Students will devise questions and remaining portion of the class will serve as audience and will also provide questions to the experts. Some audience members will prepare stories based on factual materials to reinforce the issues.
SUGGESTED MODIFICATIONS:	Have students synthesize the information gained from the activities and compose a report about what could be done to improve society. (Critical Analysis)
TEACHER PREPARATION:	
Supplies and Materials Needed:	3 x 5 cards for questions from the audience and for interviewer. Computer products to advertise. Video camera and VCR.
Step-by-step preparations:	Allow students to complete research on privacy issues. Have them work in teams—interviewees work to get their story and the issues straight, interviewers work to refine questions, members of the audience, with questions and related stories need to develop their information, advertising, video crew who will also be responsible for the music. Rehearsal then the real show. Use tape for other classes and for computer literacy classes.

Learning Style Field Review Activities

ASSESSMENT/EVALUATION:

CONTRIBUTION TO PORTFOLIO:

ANSWER KEY:

TIME FRAME:

SCANS:

TAAS:

COMMON EE'S:

Learning Style Field Review Activities

SOCIAL IMPLICATIONS

Competency:

- 5. Explain the reasons for concern about the reliability of computer systems.**

ACTIVITY NAME:

LEARNING STYLE STRATEGY:	Brainstorming, Critical Thinking
PERCEPTUAL STRENGTHS:	Visual, and Auditory
ACTIVITY DYNAMICS:	Small Group, individual and pairs
STUDENT OUTCOME:	Student will be able to recognize the importance of reliability of computer systems.
SUMMARY:	Students will listen to a guest speaker on computer reliability and will break into groups to brainstorm additional questions concerning the topic. After further discussion with the guest speaker they will each prepare a one page summary of the information.
SUGGESTED MODIFICATIONS:	
TEACHER PREPARATION:	
Supplies and Materials Needed:	Invite a guest speaker to present on computer reliability. This person may be the computer science teacher, someone from the local computer user's group, or from a computer firm.
Step-by-step preparations:	
ASSESSMENT/EVALUATION:	
CONTRIBUTION TO PORTFOLIO:	
ANSWER KEY:	
TIME FRAME:	
SCANS:	
TAAS:	
COMMON EE'S:	

Appendix A

Brainstorming: **Creative thinking, analyzing, problem-solving**

In brainstorming the teacher asks a question to which there are many possible answers. However, answers are not limited to facts, but require creative responses. Excellent for stimulating creativity and higher order thinking skills, such as prioritizing, analyzing and problem-solving.

How it works

As a small group technique, Brainstorming *encourages and enhances participation, creative responses, multiple answers to a single question, alternative solutions to a single problem.*

Brainstorming is often used as a whole group technique, led by the teacher, who writes students responses on the overhead transparency or chalkboard. To use Brainstorming as a small group technique, students must brainstorm together, in groups of 6-8. Ideas generated can then be synthesized for a particular purpose identified by the teacher, in the teacher-led, large-group sharing process.

Have students answer in order

This will prevent a few students from dominating. We know from learning styles research that some students are naturally reflective, while others are impulsive. Reflective students may never get a chance to contribute answers if they are grouped with impulsive students.

This is easily controlled by having students answer in order, just as they do in Circle of Knowledge. This gives reflective students an opportunity to think through their answer, and put impulsive on hold so they will not dominate. Research indicates that this sequential process results in a greater number of responses than "free wheeling."

Moving from creativity to higher order thinking

Make Brainstorming a two-part activity. In part one, creative answers are recorded. In part two, answers are categorized or prioritized according to a standard the teacher identifies and/or used in problem-solving.

Problem-solving through brainstorming

Many students need regular, specific practice in developing alternatives for problem-solving. This is particularly important for slower learning students who have trouble generating options.

Students should be taught the steps to problem-solving and decision making:

1. brainstorm options, alternatives
2. determine consequences for each

3. prioritize options, according to criterion (may be predetermined by teacher-most fun, least cost, safest, etc.)
4. select best answer and be ready to say why you have chosen it.

Planning Sequences for the teacher

1. Select random groups of 6-8 students.
2. Select recorder, who write down every answer and reports back to the whole class at the end of the activity. The recorder gives no answers. If other students run out of answers they may pass.
3. Consider providing transparencies or sheets of large posterboard for groups to use in writing initial answers as well as the final report. (You might have students draw or role-play final report.)
4. Rules for Brainstorming
 - Each team member will participate in turn, with one idea per person. If a member does not have an idea, he or she will say "Pass."
 - Continue generating ideas until all members say "Pass."
 - Accept all ideas at face value. Do not edit, discuss, evaluate, reinforce, criticize, put down, ridicule, or belittle any ideas during initial idea-generating step.
 - Record all ideas.
 - Encourage quantity of ideas; encourage "wild" ideas.
 - Brainstorming should be FUN! Humor is okay!
5. Set a time of 1-3 minutes for each part of the activity. At the end of the first time limit, announce that groups should move into part two of their assignment, where they analyze responses-prioritize or evaluate according to a specific standard.
6. Have a recorder hold pencils in the air to indicate they are all ready. Give them the initial assignment (question and instructions for sorting and prioritizing answers). Keep an eye on the time.

Process for sharing answers

Recorders should have the opportunity to share the results of the group's activity. If overhead transparencies have been used, they should come to the front and show them to the class, explaining what the group did as they went through the activity.

You may choose to have students design posters, role-play their answers or to communicate their answers in other creative ways.

Circle of knowledge: Review, reinforce

The circle of knowledge is a great small group activity for reviewing information in any subject, at any grade level. The teacher provides *a question to which there are many possible answers*, and the groups complete to see who can come up with the most answers.

How it works

First each team builds a list of answers. A recorder is selected, and students answer in sequence. Time is called, and the recorders then answer for each group, in order. As the teacher conducts the large group synthesis, she write their answers on an overhead transparency or on the chalkboard. Teams may challenge each other over errors or duplications, gaining extra points.

The teacher summarizes at the end of the activity, correcting errors or duplications which students have not caught. She then tallies each group's answers and announces the winner.

In addition to review, this technique is good for determining what students already know before introducing a new unit of study.

Planning Sequences for the Teacher

1. Select random groups of 6-8 students.
2. Select recorder, who gives no answers but writes down all the group's answers.
3. Instructions to participants
 - Answer in order, beginning to the left of recorder
 - Give one answer in turn
 - Students may pantomime or give a non-verbal clue to help a student in their group (or may choose to let students with no answer, pass)
 - If students hear another group's answers, they may "use them" (controls noise level)
4. Set a time limit of 1-3 minutes.
5. Have recorders raise their pencils, then give them the question and watch the time carefully. When time is up, recorder draws a line under the last answer; only answers written down can be shared with the class. Direct students to "cross off" answers in their paper as they are called out.

Process for group sharing

1. Teacher calls for answers by group number: 1-2-3-4, then reverses, 4-3-2-1. Only the recorder may call out answers, using only answers they have written down before time was called.
2. Teacher writes all answers in the overhead without comment, including duplications or errors.
3. Groups may challenge one another for duplicate answers or errors, even after they are out of answers. If challenge is correct, teacher draws a line through the incorrect answer or duplication and gives the challenging group an extra point.
4. After all the groups are out of answers and there are no more challenges, the teacher corrects all errors. She then subtracts points which may have been given for wrong answers.
5. Each answer counts for one point. At the end of the activity, the group with the most correct answers wins and should receive recognition from the rest of the class (such as a silent cheer)

Team 1	Team 2	Team 3	Team 4

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Game-Making

Game-making involves creativity, and it moves students into higher-order thinking skills. Students learn from the game-making.

Game-Making Process: Teacher	Game-Making Process: Students
1. Decide what information you want to teach in this manner.	1. What will your subject be?
2. Use materials you already have organized to be the core of information: • Textbooks • Worksheets • Videos, etc.	2. How will you move around the board? • Dice • Spinner • Draw numbers • Answer questions • Other _____
3. Decide what your desired outcome will be— • Introduction of new material • Reinforcement of vocabulary, facts, etc. • Increasing comprehension of information • Apply information and skills to a new situation • Organization and categorizing information • Create something new to its creator • Making judgments when there is not one answer that is right	3. What kind of "theme" will your board game use? • Analogies • Metaphors • Fantasy • Heroes, characters • Cartoons • Other: _____
4. Decide on student groups • Work alone • Work in pairs • Work in groups (arbitrary, by choice, random)	4. What colors correspond to the type and desired effect of your game? • Warm colors (associated with the sun—yellow, red, orange) • Cool colors (associated with water—blue, green, violet)
5. Set the parameters: how will you manage— • Noise • Movement • Mess • Time frame	5. What shapes correspond to your information and type of game? • Geometric (manmade—straight) • Organic (occur in nature—curved, etc.)
6. What supplies will you need? • Assess available supplies • Have students provide their own • Have students make out a supply list for their group	
7. Decide on a few basic objectives to start students • Size • Must it be a playable game? • Do you want it in a package? • Do you want rules? Must they be written?	
8. Encourage originality	
9. Plan for evaluation • What are you afraid will happen? • Design your evaluation to redirect undesirable outcomes • Design an evaluation for students to evaluate each other's work	

Highlighting

Highlighting or applying color over printed words engages both hemispheres of the brain—the left, analytic hemisphere is processing the printed word, while the right, global hemisphere reacts to the color. It assists in identifying what is important and consistent use of color coding helps students with sorting and prioritizing. The following colors are visually more appealing: blue, pink and yellow

Making a Memory Bank

A memory bank is a tactile/visual learning tool that can be used by students of all ages. It works with two-sided question/answer cards. Students drop cards with questions showing into the top window, and the cards come out the bottom, answer-side up. Students are very capable of making a Memory Bank cards for themselves.

Materials:

1. Memory Bank (decorated milk carton with two windows)
2. 3" x 5" cards
3. Scissors

Procedures:

1. Cut 3" x 5 " cards into two, equal pieces.
2. Notch the right hand upper corner of each piece with the scissors.
3. Write a small "Q" in the upper left-hand corner of each piece, with the notch showing n the right-hand corner.
4. Turn one or more important fact about the areas you need into questions with single answers—true/false; multiple choice; fill in the blank; circle the correct answer.
5. Write a question on the "Q" side of each card.
6. Flip one card over; notch should be at the *bottom right corner* of the card.
7. Write the correct answer on the back of the card.

How to use:

Insert cards question-side up into the top window. The cards will flip over, showing the answers as they come out the bottom window.

Step-by-Step Directions

Don't let the length of these directions alarm you! This is one of those projects that is easy once you've done it step-by-step.

Separate directions are included for the Memory Bank cards. Also included is a pattern and directions to make boxes used to store sets of Memory Bank cards. These boxes are easy to make and offer extra protection to the set of cards. However, if you choose, you may store card sets in a ziplock bag.

Making the cards can be as simple as cutting 3"x 5" index cards in two.

Memory Bank Directions

1. Prepare the tagboard or card stock from which you will cut the inserts for the milk carton.

First, trace the pattern onto tagboard. If you use card stock paper in your copy machine, you can print the pattern directly on the paper.

Second, score dotted lines and fold. The clear contact paper works well for laminating if you don't have access to a laminator at school.

It is very important to laminate these strips so the Memory Bank cards will slide through quickly.

2. Prepare the clean, dry milk carton.

Lay the carton on a firm, flat surface, with the front of the carton facing up.

Cut out the "Milk Carton Cutting Pattern." Remove the shaded areas above line B and below line A.

Place the "Cutting Pattern" on the front of the milk carton. Mark the cut out areas on the carton, then remove the pattern and cut out two pieces with an Exacto knife. (See illustration next page.)

Tactile/Kinesthetic Materials for Students of All Ages

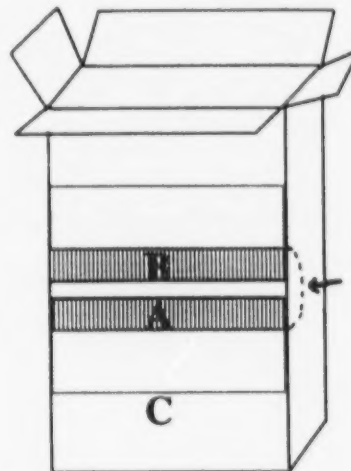
3. Attach the center piece inside the milk carton.

Pull open the milk carton flaps, and cut each corner down to the top edge of the container.

Insert the shorter "center piece" of laminated tagboard into the bottom window you've cut into the milk carton.

A. Shorter center piece (laminated first) is attached first. Fold bottom end up and tape it in place (A).

B. The top end folds down and is taped in place (B).



Note the instructions on the pattern itself -- the ends of the center piece are folded and taped to the outside front of the milk carton with masking tape.

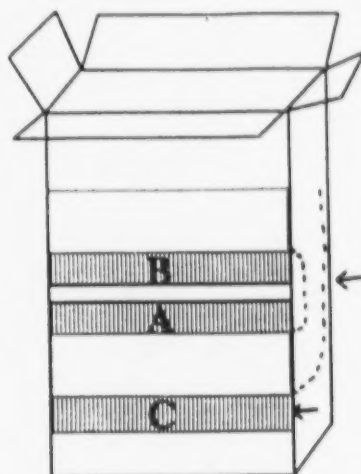
Tape all the way around the middle of the carton to reinforce the center strip.

Tactile/Kinesthetic Materials for Students of All Ages

4. Attach the slide piece inside the milk carton.

A. The slide piece is longer, and it fits behind the center piece.

B. Insert slide piece into the lower window, and fold the bottom end of the slide piece down. Tape in place (C).



Test the slide and the space between the two strips with half of a 3"x5" index card. Be sure the card slides through easily. If not, you will need to raise or lower the top edge of the longer strip before securing it with tape.

Wrap masking tape all the way around the container at line C to further secure and reinforce.

5. Close the top of the carton.

Fold two opposite flaps and secure with masking tape.

Fold the remaining two flaps and apply tape again.

To ensure a sturdy Memory Bank, wrap masking tape all around the container to reinforce it.

6. Cover the Memory Bank with Contact paper, or decorate as desired.

Use a number, picture or drawing to designate the top of the Memory Bank.

Memory Bank Patterns

score before laminating.

Fold this flap down and attach
to the outside of the container
on line B.

Pattern for Center Section.

Center for Success in Learning
17000 Preston Road, #400
Dallas, TX 75248
214/407-9277 or 800/488-9435

Copyright 1990 CSL

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Fold this flap up and attach
to the outside of
the container on line A.

Pattern for Slide

Center for Success in Learning
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Dallas, TX 75248
214/407-9277 or 800/488-9435

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Fold this flap down and
attach to the outside of the
container on line C.

Top of Carton

Remove Shaded Area

B

Memory Bank
Milk Carton Cutting Pattern

A

Remove Shaded Area

C

FOLD

FOLD

Fold under bottom of carton

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TC Memory

Bank Kit Page 5

Memory Bank Cards

Step-by-Step Directions

Before you start:

Choose the content or objective to cover.

Write your questions and answers, keeping both short so they will fit on the small cards. Try to work in sets of 12.

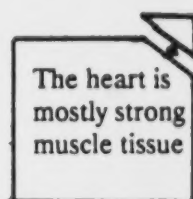
Choose which card format you want to work with -- 3"x 5" index cards, cut in half, or 8-1/2"x11" card stock or tagboard with lines marked to cut 12 cards from each sheet. (See Memory Bank card master for pattern. This works well if you have access to a copy machine which will print card stock.)

Index card format

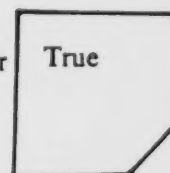
1. Cut 3"x 5" cards in half.
2. Write your own question, or glue a copied workbook problem on the front of the card.
3. Clip the upper right corner of each card as indicated on the pattern.

This clearly identifies the question side of the card -- the notch is always on the right. Students insert the card question up, and it comes out answer up.

Question



Answer



4. Turn the card over so the clipped corner is at the bottom right.

The answer is printed upside-down on the back of the card. It is reversed as it comes down the chute of the Memory Bank.

Tactile/Kinesthetic Materials for Students of All Ages

5. Write the correct answer on the card.
6. Number and code pieces of each card set so that lost cards can be identified.
7. Laminate each card.

Tagboard format -- Using 8-1/2"x11" master to make tagboard copies

1. For the questions --

Make copies of the 12-section card pattern for the content questions.

Content 1	Content 2	Content 3
Content 4	Content 5	Content 6
Content 7	Content 8	Content 9
Content 10	Content 11	Content 12

Note they are lined and numbered; print directly on card stock, or use regular copy paper and glue it to tagboard. (Spray adhesive works well for a project like this.)

Type, glue or write the content questions in the designated spaces.

2. For the answers --

Lay an unlined piece of paper on top of the answer master to use as a guide for correct answer placement.

5 ANSWER	1 ANSWER	1 ANSWER
9 ANSWER	5 ANSWER	7 ANSWER
6 ANSWER	8 ANSWER	7 ANSWER
2/ ANSWER	11 ANSWER	10 ANSWER

Note that the answers are not only to be printed upside-down, *but the rows are numbered from the bottom to the top.*

Tactile/Kinesthetic Materials for Students of All Ages

There is no need to draw lines on the answer side of the tagboard; the pattern guide will help you place them properly.

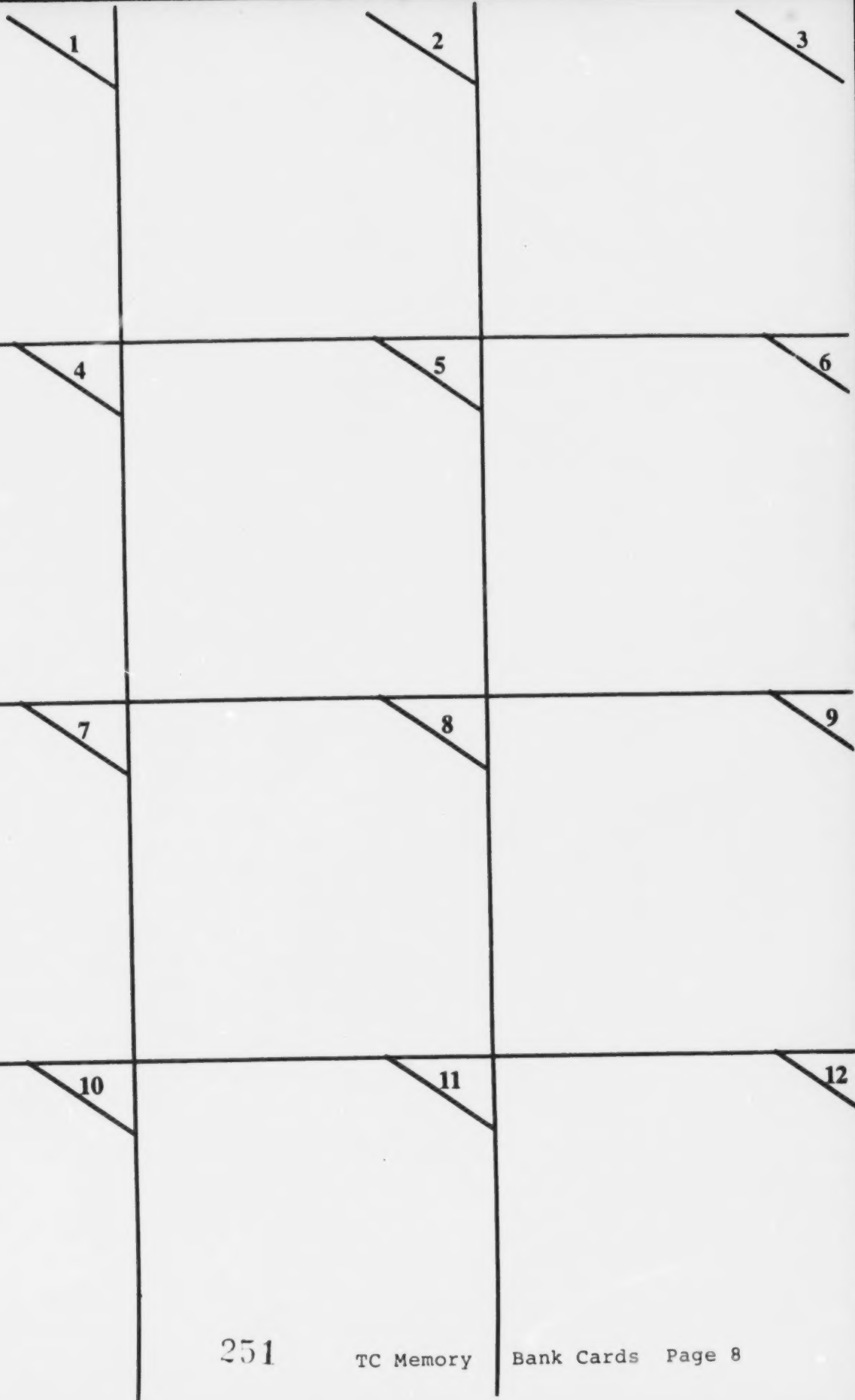
Type, glue or write the answers for each section on the unlined paper.

Code or write your name on each answer square.

3. Use a copier to print the content questions directly onto card stock. Or, you may choose to print answers on paper and glue this to the tagboard.

Check to see that the correct answer is upside down on the back of each question.

4. Laminate the tagboard.
5. Cut sections apart and clip the upper right corner of each content card.



Appendix A: Learning Style Information

Metaphorical Thinking

Metaphors are word pictures. Many students think in pictures, patterns and relationships which makes metaphors effective learning tools. Metaphors organize and connect information. Metaphors and similes allow *students to connect new information to what they already know through personal experience*. This allows students to process new information with their personal experiences. Metaphors provide a bridge between a student's concrete experience and new learning.

Metaphorical thinking is the ability to see the relationship between two unlike things by recognizing that in some way they share a common trait or principle. Using metaphors and similes offers a single image which may contain many such traits.

Examples A computer is like a brain. Ask students how computer and brain are alike.

Or, provide students with a concrete word and let them identify the essential parts

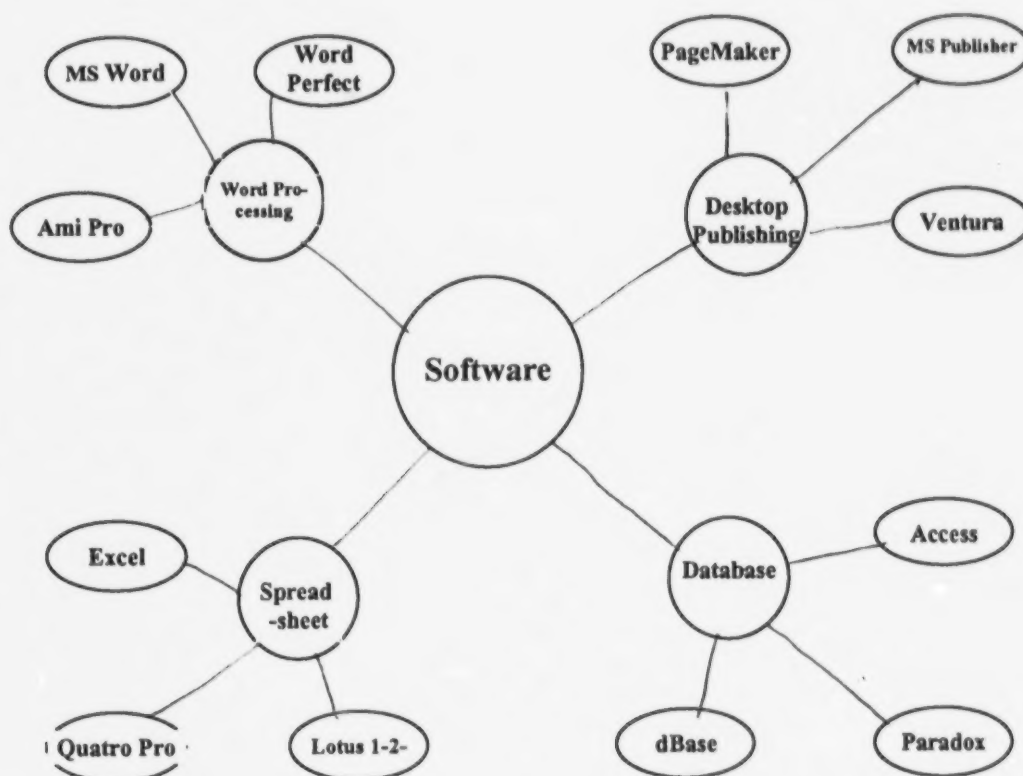
Mind-Mapping, Webbing or Networking

A mind-map creates a visual outline of a unit of study. It provides a graphic illustration, rather than a linear outline. Mind-maps may take on several shapes—a hand, a clover, a daisy, stair steps, etc. Or, they may be simple circles or shapes networked with lines.

Common ways of working with mind-maps

- having student build their own maps step-by-step as they move through a unit of study together;
- drawing the map in advance and having students "fill in the blank"
- using mind-maps as an effective way for students to summarize homework or as questions on tests.

Example :



Appendix A: Learning Style Information

Mnemonics

Mnemonics are memory aids. Some of the most effective mnemonics involve humor, pictures, patterns, color, creativity and playful problem-solving. Students enjoy making their own mnemonics, and the sillier or funnier they are, the more likely they are to remember them.

Acronyms

Acronyms use the first letter of several words to spell a word.

Example:	H	Huron
	O	Ontario
	M	Michigan
	E	Erie
	S	Superior

SWBYP's Southwestern Bell Yellow Pages

Chaining Sentences

Chaining sentences allows great leeway in creativity and humor. The first letter of each word in a sentence stands for a key word or idea. The sillier the sentence, the better. One common sentence chain is "Aunt Alice ate apples nearly every Saturday" which stands for the continents of (Africa, Asia, Australia, Antarctica, North America, Europe, South America.)

Questioning strategies

Analysis

Students tell the difference between information that is relevant and irrelevant, important and unimportant. They make inferences and identify assumptions in given material. Some questions to help teach these skills include:

- Role-Play: analysis, review, orientation
- Simulations: analysis, problem-solving
- Brainstorming: creative thinking, problem-solving
- Circle of Knowledge: review, reinforce

Key points

- Small group techniques increase the effectiveness of instruction in either an individualized, learning style classroom or a more traditional classroom.
- Small group techniques provide for active learning and peer interaction.
- It is acceptable to allow students to be in a "group of one" with high accountability for performance.
- Good management allows for well-structured groups, designed for specific purposes—and avoids classroom chaos.
- Small groups, structure is based on cooperation rather than competition. Students interact with and support each other in the learning process. This is a good match for the global student. Small group learning can include all perceptual strengths: auditory, visual, tactile, and kinesthetic. The teacher serves as the facilitator and the students are actively engaged in learning together.

Procedures for organizing and managing students.

1. Students should be **randomly placed into the small group**. However, if you notice that random grouping has produced a potential problem changes can be made before beginning. In fact, build into your system to regularly change one or two students within groups so that when it has to be done little attention is called to it. IT should be remembered that YOU, the teacher, are in charge.
2. **Select a recorder for each group**. The will be the one who writes and reports his/her group's answers. The recorder should be randomly selected, for example:

"The recorder in your group will be the one who has the earliest birthday in your group (disregard year)."

"Ate the biggest breakfast (or lunch)."

"Has the most earrings, zippers, rings, etc."

If you recognize that the person selected might have a problem, find a way out—for instance, allow each person selected as a recorder to pick someone else to be the recorder.

3. **Initiate the strategy**. The strategy will depend on the group objective. Remember the teacher is there to guide, to observe and assist as necessary.
4. **Conduct the large group sharing experience**. The large groups having experience is where learning is synthesized by the teacher. At this time learning is reinforced, emphasis is placed on the essential points, thinking is extended, additional research is assigned.

Questioning Strategy for Secondary Students

Analysis

Students distinguished relevant or important information from the irrelevant or unimportant. They also make inferences and identify unseated assumptions in given material. Some questions to help teach these skills include:

- Which part of this information is factual? Which is opinion?
- What is real in the story and what is fiction?
- What assumptions are necessary for...to be true?
- What is the fallacy in...?
- Is there enough information to support...?
- Does the information support the idea that...?
- How does...relate to...?
- How would you test/communicate/identify...?
- How would you clarify...?
- What categories would you use to...?
- How would you differentiate between...?
- What distinguishes...from...?
- Compare and contrast...and...?
- Analyze the situation...?
- Examine...for differences/similarities.
- Debate the idea that....
- What is the author's point of view?
- What do you infer from...?
- What technique would be most successful with...?

Synthesis

Students use what they have learned in different and in new ways. Some questions/directions that help students think more creatively include:

- How would you explain...?
- Propose a solution to...
- Organize a plan to...
- What revisions are needed...?
- What kind of design would be best for...?
- Compose a...?
- Come up with a theory that would account for...?
- If...is true, what else might be true?
- Use the technique of...to...
- How would you go about proving...
- Make suggestions as to why...and what can be done about it.
- Modify...so that...
- Think of some new ways that...
- Devise a...
- Explain your ideas for...
- Write a ...that will...
- Improvise a way of...
- Think of an alternate solution to...
- Let's brainstorm about...

Evaluation

Students judge and appraise ideas, situations, materials, etc. The standards or criteria that students use to evaluate may take the form of a model. "This is not a good sonnet because a sonnet must...". Other standards or criteria can be self-developed or given..."I think this is well written because..." or "This is a good example of what you are wanting since it also has..." The important thing is that students can support a choice logically. Some directions/questions that help develop this skill include:

- Please critique your work...
- Is...right? Support your answer.
- How do you feel about economic conditions today, as opposed to 1929?
- Compared to other teams, what do you think of...?
- Is the conclusion supported by the evidence?
- Is your...consistent with...?
- Is...up to standard? Describe.
- Which course of action would be best? Why?
- Would it have been a bad thing if...Why?
- How does your...measure up against...?
- Give your reasons for thinking...
- Justify your response.
- What are your reasons for feeling...?
- What evidence is there for thinking...?
- Give the situation, what decisions...Give your reasons.

Appendix A: Learning Style Information

Role-Play

This is a simple kinesthetic technique which can be used as a review, an orientation or to teach students how to handle an imaginary situation in a safe, instructional way before they may encounter it in the future. Students are given real or imaginary situations and then asked to act out their responses in an unstructured, spontaneous manner.

Role-play aides students in gaining insights into behavior and increases ability to understand situations, problems and issues. Assuming different roles requires new analysis or fresh viewpoint, and assist the student to develop new perceptions. Students learn that there is more than one way to see situations. Role-play can help students respect other viewpoints and approaches. Role-playing can be used alone or incorporated into case studies and/or simulations.

Appendix A: Learning Style Information

Simulations

Simulations are *structured imitations of real situations, events or problems*. They usually involve the mechanics of a thing or situation, issues, beliefs, confrontations, point of view, attitudes, interaction, decisions and the resolution of problems. The teacher can act as director or chief consultant.

Students are given materials, assigned groupings and roles. Time is given for students to familiarize themselves with the situation, after which, the simulation commences. Simulations help the participants to gain new insights into the way situations or things work. Simulations develop understanding kinesthetically.

Appendix A: Learning Style Information

Small Group Activities

One general learning style characteristic of global students is their preference to learn with their peers, either in pairs or small groups.

The following are examples of small group activities:

Case Study: Analysis, Problem Solving

The case should *focus sharply on a single incident, problem or situation*. The situation is analyzed by each small group of five to eight participants. At the end of the case study, factual questions, reasoning values, standards or other abstractions and finally applications should be designed for conclusions reached. Activity can be used to write a short situational study which could be developed with media such as films, photographs, etc.

Team Learning: introduce new materials, higher-order thinking.

This technique is excellent for introducing new material. Includes short paragraphs (from sections of the textbook, workbook, lab manuals or other resources such as filmstrips, or videotapes) followed by teacher-designed questions.

How it works:

The teacher designs questions to guide students in mastering the material. Some questions will relate directly to the reading, while others will require higher-order thinking skills of analysis, synthesis or evaluation. A final, synthesis-level question requires students to transfer essential information to another form—a poem, rap, skit, mural or other creative expression. This assists in retention and makes learning fun.

Students are directed to read or view the material and then come together to discuss and agree upon the group's answers. When groups are finished, teacher conducts large group summary to reinforce and synthesize the material learned, to identify critical attributes related to lesson objectives, and to extend thinking.

Planning sequence for the teacher—

1. Gather and prepare the material.
2. Develop a series of questions which range from knowledge to creative application level, moving up Bloom's Taxonomy.

Appendix A: Learning Style Information

3. Reproduce material/questions for each student.
4. Organize groups, select recorder, distribute materials, set time limit.
5. Observe and assist.
6. Conduct the group sharing experience to synthesize learning.

NOTE: The following procedures should be followed for all group work:

1. Present material (background for history of desktop publishing) The material for the research of this project could be taken in part from the unit overview, from other texts or secure materials from the library. Teacher may make arrangements for students to visit the library.
2. If material is taken from supplemental materials, be sure to duplicate enough copies for each student before the class period begins.
3. Randomly assign students to small groups of 3-5. Be sure to quickly correct any disasters created by the random teaming preferable prior to giving the group assignments.
4. Select a recorder for each group to write and report all group answers, comments, facts, etc.)
5. Teacher will prepare all materials, state the objectives and the time limits. Teacher is there to observe and to assist as necessary—a facilitator—not as a lecturer.
6. At end of group time, the students will return to the large group and the teacher is able to synthesize the learning.

Teacher will want to state that if the student would rather work by himself/herself rather than with a cooperative group and if you know you will do a better job, then that student can sign up for a group of one. Be sure to state to these students that you expect excellent work from them and if they can't do that then they will lose their privileges next time.

Provide materials
Allow sufficient time
Allow classes to vote on best movie if desired
Award for the winning team

Group Analysis: Critical Thinking, Evaluation

This technique is similar to Team Learning however, it differs in the focus of questions. Questions are selected from those requiring *higher order thinking, analysis, synthesis and evaluation*.

How it Works—

Students work together to discover relationships, to compare and contract, to interpret, and/or evaluate. The teacher then conducts the large group sharing to summarize, reinforce and extend the learning.

Information to be analyzed may include charts, tables, graphs or descriptions. When Group analysis is focused on events, problems or situations of importance, the activity is called a Case Study.

Appendix A: Learning Style Information

A creative project in the form of a skit, poem, mural, chart, article, experiment, etc. can be developed to complete the Group analysis activity.

Planning Sequence for Teacher

1. Prepare or copy printed material or resources to be analyzed.
2. Design a question or directive concerned with application, analysis, synthesis or evaluation.
3. Divide students into small random groups and select a recorder.
4. State objectives and time limit.
5. Facilitate large group sharing.

Appendix A: Learning Style Information

Visual Cues

Students tend to think in pictures and patterns, pictures or graphic illustrations can be used to communicate ideas and concepts directly and without words. When words, facts, ideas must be learned; pictures and graphic illustrations help some students recognize and recall what they have learned.

Simple Picture Illustrations

Simple pictures, such as a teapot for the Boston Tea Party with the date written on the inside of the pot, can assist some students remember the date. When it comes time to recall the date some will be able to close their eyes, "see" the teapot and read the label.

Memory Tools

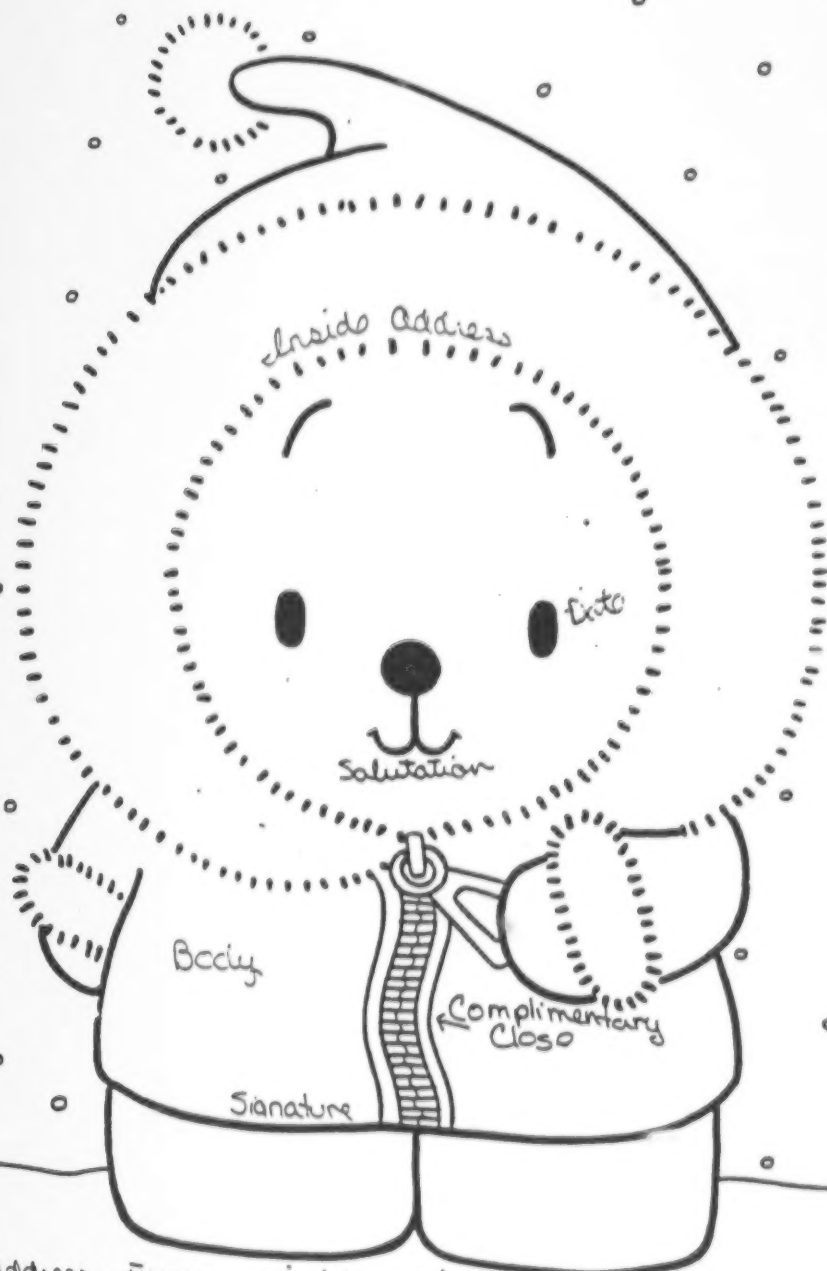
Visualization can be a memory tool. If there are several steps to remember, have them visualize the rooms of their house. Then have them mentally step into each room, and "touch" something in the room and place what they are trying to remember in the room. Finally step them back through the rooms visually stopping in each room. Have the students touch something as they place fact, step or process one room at a time. They should not have more than two rooms in their mind at one time.

Picture Chains

Words can be remembered through a process that uses animation, color and humor as memory tools. It is important to create the most colorful, absurd, or humorous picture for each word or concept that is to be remembered. To create the "chain", imagine your second word or concept touching the first word. The next link in the chain is made by connecting pictures of the second and third word. Two important facts when using picture chains are:

- Do not hold the image of more than two word pictures in your mind at the same time
- Word chains must touch each other.

Example: Try to remember the following list of words in order.



Inside Address - Furry inside lining of the cat

Date - Winking on a date

Salutation - like a spoken greeting

Body - The bear's body

Complimentary close - zipper closing the jacket

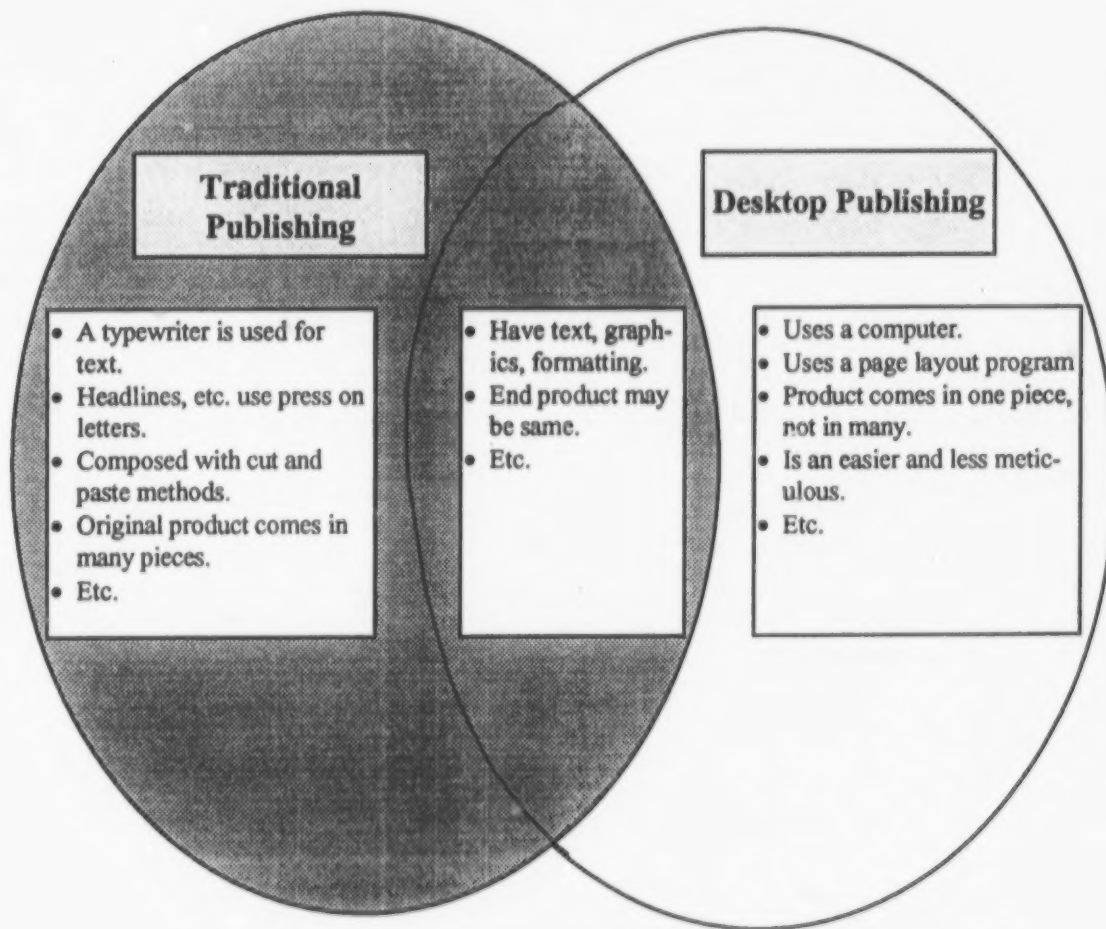
Signature - makes signature seal on clothing

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Appendix A: Learning Style Information

Venn Diagram

A Venn Diagram is used to show differences and likenesses or commonalities. The left portion of the left sphere is for the items common only to Traditional Publishing. The right portion of the right sphere is for the items found to be common only to Desktop Publishing. The area that overlaps each other is the area of traditional and desktop publishing that overlap and are common to both.



Appendix B

Typical Right and Left Brain Behaviors

Analytic (left) brain behaviors respond to:

- Recognizing and remembering *names*
- *Verbal* instructions
- Emotional *inhibitions*
- *Words* for meaning
- Producing *logical* thoughts/ideas
- Processing information *sequentially*

Serious systematic problem-solving

- *Logical* appeals
- Critical analytical reading/listening

Problem-solving through *logic*

- *Verbal* instructions/information
- Remembering through *language*
- Reading for *details* and facts
- *Realistic* stories
- Improving *existing* things/ways
- Learning through systematic *plans*
- *Outlining* rather than summarizing
- *Intellectuality*, then creativity
- Remembering *verbal* qualities
- *Well-structured* assignments

Analytic Students

- May appear to be uncaring or unemotional because they are reserved, logical, less demonstrative.
- May seem disinterested, less enthusiastic, not smart enough to answer quickly because they are reflective and like to think before they speak. They speak with few gestures, and may have reserved body language.
- May seem cold and calculating because they are so logical and want to get to the bottom line.

Global (right) brain behaviors respond to:

- Recognizing and remembering *faces*
- Visual and kinesthetic *instructions*
- *Emotional* responses (strong)
- Interpreting *body language*
- Producing *humorous* thoughts/ideas
- Processing information *subjectively* and in *patterns*

Playful problem solving

- *Emotional* appeals
- Creative, synthesizing, associating, *applications* in reading and listening

Problem solving through *intuition*

- *Demonstrational* instructions/information
- Remembering through *images/pictures*
- Reading for *main ideas/overviews*
- *Fantasy*, poetry, *myths*
- Inventing *new* things/ways
- Learning through *explorations*
- *Summarizing*, rather than outlining
- *Creativity*, then intellectuality
- Remembering *tonal* qualities
- *Open-ended* assignment

Global Students

- May seem disorganized because they are involved in many projects at the same time, or because they file in "piles."
- May seem less serious because humor, fun, and emotion are important to them.
- May appear scattered in their thinking because they are spontaneous, impulsive, think randomly and process information in "chunks" rather than sequences—and often are involved in several projects at the same time.
- May seem less able to learn because we have to taught them in a way they can learn.

Characteristics of Analytical and Global Students

Analytical Student Characteristics:

Independent

- Works alone
- Likes individual competition
- Becomes deeply involved in what he/she is doing
- Not concerned with personal experiences of teacher

Works step by step

- One task at a time
- One job at a time
- Logical thinking

Logical thinking

- Learns through systematic plans
- Thinks sequentially
- Serious, systematic problem-solving
- Critical, analytic reading/listening
- Outlines rather than summarizes

Verbal

- Responds to verbal instructions
- Recognizes and remembers names
- Words for meaning (rather than tone)
- Remembers through language
- Thinks in words, symbols

Concentrates on tasks at hand

- Remembers details
- Not easily distracted

Consistent with rules and assignments

- Likes to organize assignments
- Prefers options
- Analyzes problem—then makes a decision

Prefers specific grading criteria

- Does not mind criticism
- Wants to know exactly what he/she did wrong
- Does not like vague questions, such as "suppose"

Likely to say—

- Does spelling count
- Should I skip lines?
- What are you looking for
- What comes first second
- Please check my work before I turn it in.
- Will this be on the test?

Left Brain

- Quiet while learning
- Bright light while learning
- Formal design while learning
- Learning lone or with authorities
- Academically motivated/persistent
- Auditory, visual, tactile channels

Global Student Characteristics:

Needs whole ideas before step-by-step

- Reads overall idea, skipping details
- Can work on several things at the same time
- Writes whole paper before outline
- Skips details
- Often answers "it depends"
- Summarizes rather than outlines
- Reads for main ideas, overviews

Interested in team competition

- Lets someone else go first
- Likes working with others

Sees relationships

- Understands things in context
- Reads between the lines

Remembers images, pictures

- Good at interpreting body language
- Remembers faces not names
- Likes fantasy, poetry, myths

Thrives on humor

- Playful problem-solving
- Motivated by having fun learning

Relates what is being taught to personal experiences

- Needs praise
- Distracted by facial expressions
- Hard to take criticism, even constructive criticism
- Feels better about accomplishments if rewarded, praised
- Has strong emotional responses

Likely to say—

- Why are we doing this?
- Not now—I'll do it later
- I need a break!
- Don't touch the piles on my desk!
- I know where everything is
- Why does it really matter?
- Let's start this project . . . and that one, too.
- Why can't I skip around in the book?
- I remember what he looked like, but not his name.
- I'll come back to this later*

Right Brain

- Sound while learning (music, wind, etc.)
- Soft, dim light while learning
- Informal design while learning
- Learning with peers
- Less academically motivated, persistent
- Tactile, visual channels

**Analytic
(left)**

files
details
outline first
words, symbols
words, for meaning
talking to self
logic defined
emotion reserved
one thing at a time
punctual
names
realism

piles
big picture
outlines last
pictures, patterns
words, for tone
seeing clear pictures
logic undefined (intuition)
emotion expressed
juggle many projects
slinging gravel
faces
fantasy

**Global
(right)**

Analytic student --



- independent
- step-by-step
- logical
- verbal
- concentrates
- consistent

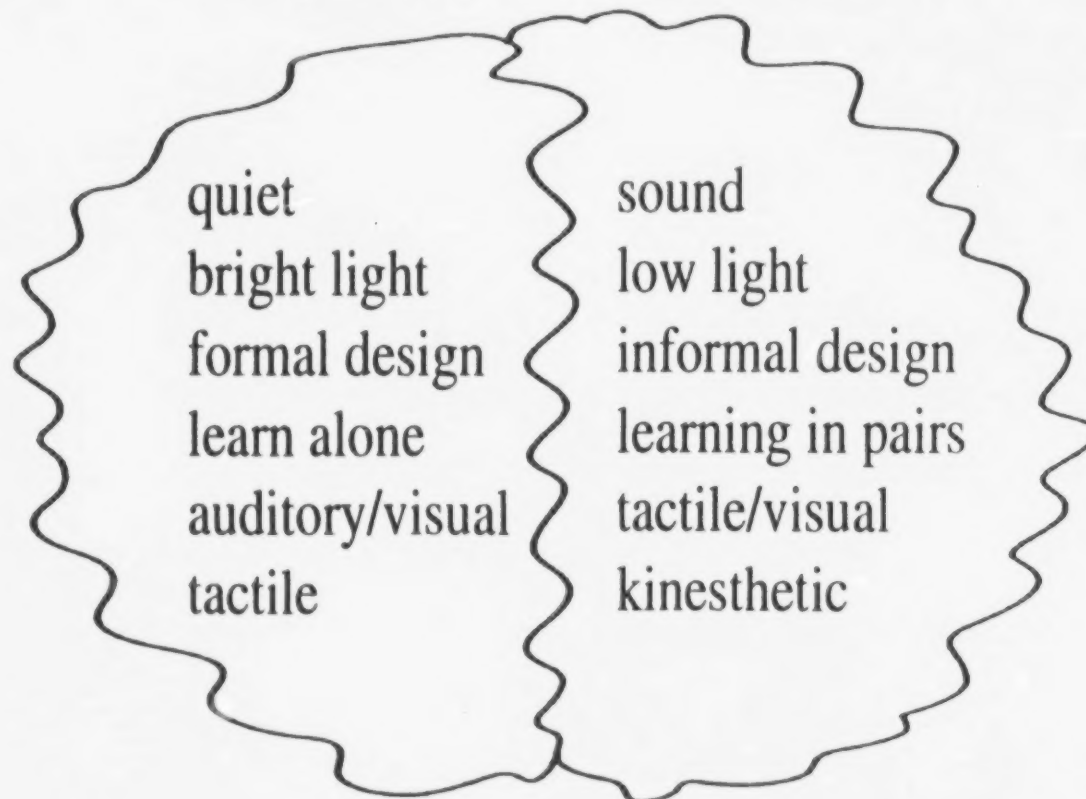
Global student —

- needs big picture
- likes working with others
- sees relationships
- humor
- personal experience



Analytic (left)

Global (right)



What to do to reach your opposite hemisphere people

If you are a global and wish to reach your analytic students, try the following:

1. **Explanations and visual reinforcement.** Explain procedures and approaches to be used in reaching specific objectives. Write key words on the chalkboard as you speak—Analytics respond to words and numbers. Answer questions about details directly, and use printed visuals on either an overhead projector, slides or the chalkboard.
2. **Directions.** Provide a list of all assignments, directions, test dates and specific objectives for each student. Directions may be placed on a chart or on the board for students to copy.
3. **Learning through direct teaching or related resources.** Proceed step by step throughout the details which need to be assimilated to reach understandings or to acquire skills. Put key words on chalkboard; distribute fact sheets; underline important sections; check homework and notebooks daily. Make sure students know how to use the library and to find and use reinforcing material directly related to the specific objectives of the sequence.
4. **Testing and feedback.** Test frequently provide instant feedback on details in the sequence; respond to questions as soon as possible; check listed expectations and requirements.

If you are analytic and wish to teach your global students in ways that make it easier for them to understand and remember, try the following:

1. **Introducing material.** Begin the lesson with either a story, an anecdote, a humorous incident or a joke that's directly related to the content you are teaching. If possible, relate the introduction to the students' experiences. If that's not feasible, relate the introduction to something that is realistic to them.
2. **Discovery through group learning.** Avoid telling the students too many facts directly; instead, get them to unravel the facts by themselves. To do this, use small groups—rather than individuals—unless children prefer to work out solutions by themselves. Usually, global students find it less threatening to solve problems when others are present. For five easy-to-use, small-group techniques that enable students to learn together in an organized, controlled way, see *Teaching students Through Their Individual Learning Styles: A Practical Approach*, Chapter 3.
3. **Written and tactual involvement.** In addition to encouraging global students to think through by themselves those details related to what they must learn rather than telling them the answers), have them write their new information and, if they can, illustrate it. Globals tend to draw meaning from pictures, photographs, symbols and other visual representations; they respond less well to words and numbers. Thus, have them demonstrate their mastery of specific objectives by developing dioramas, graphs, charts, games, and so on. Since it also helps for global to act out what they are learning, you might also encourage pantomimes, plays making puppets to demonstrate what has been learned, and even developing their own teaching devices so that others can learn through their strategies.

Which Students Will Benefit From a Non-Traditional Classroom

"Which Student Groups Will Benefit from a Non-Traditional Classroom Environment?"

Many research studies have identified the learning styles characteristics of specific student populations. In each case, the general LSI profile characteristics reflect a group profile of that particular study. Individual group profiles within the study many vary.

Eighteen of those studies are referenced in a special bibliography in the back of this section of your manual. What do those studies tell us.

	Need Sound	Dim Light	Informal Design	Learn with Peers	Tactile Strength	Kinesthetic Strength	Time Not Early	Need Mobility	Right Hemisphere
Global	✓	✓	✓	✓	✓	✓		✓	✓
Special Education	✓	✓	✓		✓	✓	✓	✓	✓
Slowly Poorly Achieving	✓	✓	✓	✓	✓	✓	✓	✓	✓
At-Risk	✓	✓	✓		✓	✓	✓	✓	✓
Drop-outs	✓	✓	✓		✓	✓	✓	✓	✓
Vocational	✓	✓	✓	✓	✓	✓	✓	✓	✓
Remedial Reading	✓	✓	✓	✓	✓	✓	✓	✓	✓

Traditional school model



- Quiet
- Stay in chairs
- Learn alone
- Paper/pencil
- Lecture — teacher
- Competitive
- Student — passive

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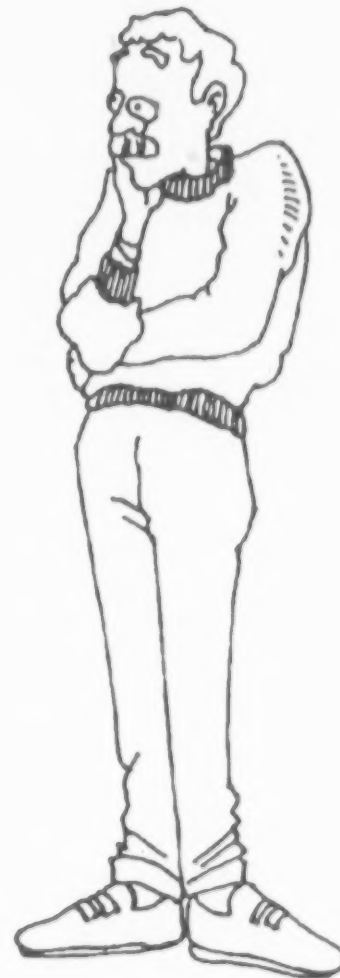


Why do teachers teach the way they do?

- It is the “way we were taught,” and *we were successful in it.*
- It is the “way we learn.”
- It is the “easiest, most expedient way to cover the material.”

Is there a teacher learning style?

- *Learning by looking and listening*
- *Studying alone, in quiet*



Is there a mismatch between student's learning style and teacher's learning style?



Or



Is the traditional classroom the best way to teach all students?

Organization: Small Groups

- Random selection
- Recorder
- Initiate strategy
- Large group sharing



Small group techniques --

- ♦ Case study
- ♦ Team learning
- Group analysis
- Role-play
- Simulations
- Brainstorming
- ♦ Circle of knowledge



Case Study



- Single incident
- Problem
- Situation

Group Analysis

- Extends team learning
- Higher order thinking

-analysis

-synthesis

-evaluation





Group Analysis Questions -- *Elementary/Secondary*

- Analysis
- Synthesis
- Evaluation

Simulations

Imitation of --

- situation
- events
- problems



Brainstorming --

- In order --
prevents one
student dominating
- Promotes higher order thinking
prioritize
problem-solve



Circle of Knowledge: Review

- Teams compete
- “Soft rules” --
allow pantomime
- “You may use answers,”
controls noise.



Learning Styles: The Dunn and Dunn Model

Strands

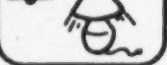
Elements

Environment

Sound



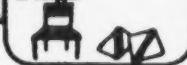
Light



Temperature

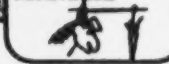


Design



Emotional

Motivation



Persistence



Responsibility/Conformity



Structure



Sociological

Self



Pair



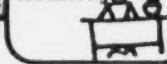
Team



Colleagues



Authority



Varied



Physical

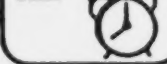
Perceptual



Intake



Time

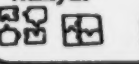


Mobility

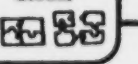


Psychological

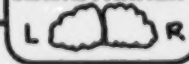
Analytic



Global



Cerebral Preference



Reflective



Impulsive



Based on the Dunn and Dunn Learning Styles Model designed by Drs. Rita and Kenneth Dunn.

Elements of Learning Styles

Environmental Strand

The environmental elements of learning are thought to be biological and related to one's physical being.

Elements

Sound, Light, Temperature, and Design

Sound

Many students require absolute silence when they are concentrating; others can block out distracters and absorb information; and some cannot study in silence. Soft, classical music is ideal to block out sound distractions. When student preferences are allowed they achieve significantly better.

Light

Students also respond differently to light. Some need brightly lit area to learn and others have adverse reaction when light is too bright for them. Light affects about 70% of all people; therefore, it is one of the five most important elements of learning styles. Certain types of lighting make some students hyperactive. Just because we need more light does not mean that the students need more.

Temperature

All of us recognize the need to have a compromising room temperature because in the same room and at the same time—some feel warm, others are cool, some are cold and many are comfortable. When we are uncomfortable with our surroundings it is difficult to concentrate.

Design

How do you learn best? Some of us learn best by sitting in a “formal design setting”—a straight chair at a desk or table. This is usually found in a classroom, library or kitchen. Others prefer a more “informal design”—relaxing on the lounge chair, couch, bed, or on the floor.

Emotional Strand

The *emotional elements* of learning styles appear to be an outgrowth of both the environment and each person's emotional makeup.

Elements

Motivation, Persistence, Responsibility, and Need for either Structure or Options

Motivation, Persistence, Responsibility

If a student has these qualities they should be taught differently than those students who do not have them. The motivated, persistent, responsible youngsters should be told what they are required to learn, i.e. Objectives, what they may use as resources how they may show that they have mastered their objectives, and where to get help if they need assistance. They appreciate feedback and praise after they complete their work. Learns through conformity. Motivation generally takes care of itself when students become successful in learning. It should be recognized that global students may work on several projects at one time without first completing them. This appears that students are not persistent. Many times students with low persistence are overwhelmed by the size of the assignment.

The unmotivated, less persistent, and responsible students require short assignments with very few objectives, frequent feedback, a great deal of supervision, and genuine praise as they are working. This type of student does not learn through conformity.

Structure

Students who require specific directions, sequential tasks, frequent feedback and continuing support usually achieve well with a very structured instructional method especially if they are highly visual or visual/tactual and are able to work alone.

A multisensory instructional package work better for those students who are tactual/kinesthetic or peer oriented, but they require structure, highly auditory or visual, and finds learning difficult.

Students with a high need for structure want all the details of an assignment. They want orderly, consistent patterns in the classroom. Students with a low need for structure take the idea and run with it.

Sociological Strand

The *sociological* elements of learning style appear to be environmentally based.

Elements

Learning Alone, with Peers (pairs, team), with an Adult (collegial, authoritative), or in a Variety of Ways

Learning Alone

Some students need to learn by themselves away from the distraction of other students. This type of student should be placed in an unstructured environment according to their perceptual strengths and their need for structure. Students can arrange and rearrange the classroom quickly to accommodate the sociological learning preferences.

Learning with an adult—collegial, authoritative

All students respond well when they are matched to the learning and teaching style that is right for them. Grades appear to increase and the student tends to like school better.

Variety in learning

Some students need routines and patterns and do not feel comfortable doing new/different things too often. Others like change and are bored with routine. These students benefit from varied sociological patterns, variety of instructional media—including computers, videotapes, films, etc.

Physical Strand

The physical elements of learning style appear to be biological in origin.

Elements

Perceptual Strengths, Intake, Time of Day, and Need for Mobility.

Perceptual Strengths

Genetically the females develop auditory skills earlier and faster than the male. These characteristics appear to follow through in life—women tend to be more articulate and lose their hearing later. In development the perceptual strengths appear on a continuum—kindergarten, tactual/kinesthetic; third to fourth grade, visual strengths; and fifth or sixth grade, most students begin to become auditory. An auditory learner can remember about 75 percent of what is verbalized in a 40- to 45-minute lecture; a visual learner remembers approximately 75 percent of what is seen during a class period of the same length.

Perceptual strength development and reading

Several studies have shown that when the reading approach is matched correctly to individual children's perceptual strengths, they learn more words more easily and remember them longer. Motivation generally declines in direct proportion to their inability to master reading. About 40 percent of the general population has visual learning strengths, including the analytical and gifted. Most teachers have visual learning strengths.

Tactile learning strengths remember 75 percent of what they learn by touching and manipulating for the first time. The global and gifted which makes up about 15 percent of the population have tactile/kinesthetic learning strengths. In studying drop outs one study revealed that 88 percent were tactile and 99 percent were kinesthetic.

Kinesthetic students remember 75 percent of what they learn by moving their large motor muscles or by being involved in active learning. The global and gifted which makes up about 15 percent of the population have tactile/kinesthetic learning strengths. Research reveals that perceptual strength pattern for struggling, unsuccessful learners is tactile/kinesthetic.

Intake

Some students who eat, drink, or chew gum while they are engaged in cognitive students achieve higher grades. Snacks should be nutritional. Only between 4-10 percent of the total population need to eat or drink while they are learning. School rules and regulations may not allow intake but it is worth a try. Classroom management procedures make intake a privilege to be earned through better attitudes, behaviors and grades.

Time

All of us enjoy different peak energy times during the day or night. The same is true of students in the classroom. One study found that when students were scheduled for

classes at a complementary time of day, school records showed a reduction in chronic truancy and lateness.

Time of day preference is biological. Some students cannot learn early in the day; others cannot learn later. In several national studies on dropouts, not one was found to be an early morning learner.

Mobility

Some students are able to remain seated for long periods of time while others need to move around. There may be several reasons for their need more movement and the movement and large-scale motor activity

Psychological Strand

The psychological elements appear to be both biological and environmental in origin.

Elements

Global/Analytic, Hemispheric Preference, and Impulsive/Reflective

Global/Analytic

Some students learn sequentially, step by step, in a well-ordered continuum—the way math, biology and grammar are traditionally taught. This type of learning is analytic. Other students have to see the overall view and become involved. This type of learning is called global. Both types of learners achieve better when learning styles and teaching styles are matched.

Hemispheric Preference

Right brain and left brain dominance plays an important part on how a learner learns.

Perceptual Strengths

As mentioned earlier our traditional instruction is auditory/visual. However, from research it has been found that the majority of at-risk students are global, and have tactile/kinesthetic learning strengths.

- 15 percent of all students have tactile/kinesthetic strengths—Rita Dunn, *Learning Styles Newsletter*, Vol. 7.1, 1986.
- 88 percent of all dropouts have strong tactile abilities
- 99 percent have strong kinesthetic abilities
Helen Hodges, *Educational Leadership*, 44(6), 1987.
- 85 percent of poor readers are global, tactile/kinesthetic
Helene Hodges, *Educational Leadership*, 44(6), 1987.
- 85 percent of poor readers are global, tactile/kinesthetic
Marie Carbo, *CSLnews*, Vol 6.2, 1992

Think about your own preference pattern—

Auditory - needing to hear to learn

Visual - needing to see to learn

Tactile - needing to touch or manipulate

Kinesthetic - needing to experience using large muscles

These perceptions are a key to this entire project. We as teachers really care about our students but sometimes we are doing the wrong things for the right reasons. Using the activities provided allows us to reach students in the way that is best for them. Learning auditorially is not the preferred way.

Appendix C

Business Computer Applications

75.87 (e) Business Computer Applications I (1, 2, or 3 units) shall include the following essential elements:

- (1) Concepts and skills related to computer operations. The student shall be provided opportunities to:
 - (A) demonstrate comprehension of computer-related vocabulary;
 - (B) describe the functions of components of a computer system;
 - (C) demonstrate and apply the capabilities of an operating system; and
 - (D) explore the concepts of telecommunications techniques and networking.
- (2) Concepts and skills related to word processing. The student shall be provided opportunities to:
 - (A) demonstrate word processing concepts;
 - (B) apply higher-level capabilities of word processing tools and software; and
 - (C) understanding the procedures and recognize the importance of merging data processing and word processing.
- (3) Concepts and skills related to spreadsheets. The student shall be provided opportunities to:
 - (A) demonstrate higher-level spreadsheet concepts; and
 - (B) apply higher-level capabilities of spreadsheets.
- (4) Concepts and skills related to database management. The student shall be provided opportunities to:
 - (A) demonstrate database concepts, procedures, and capabilities; and
 - (B) apply higher-level capabilities of database management.
- (5) Concepts and skills related to advanced application software. The student shall be provided opportunities to:
 - (A) discuss integration of people and computers for productivity;
 - (B) demonstrate the ability to apply information processing concepts and skills to realistic business situations;
 - (C) demonstrate the ability to apply information processing concepts and skills to realistic personal situations; and
 - (D) identify tools for preparing information for mass distribution including desktop publishing, graphics, and maintenance of electronic bulletin boards.

- (6) Concepts and skills associated with the social implications of computers. The student shall be provided opportunities to:
- (A) examine issues concerning responsible use of computer systems; and
 - (B) understand the social ramifications of computer applications related to privacy, values, and reliability of systems.

Competencies

I. Introduction to Business Computer Applications

1. *Introduction to the course*
2. *Computer-Related Concepts*
 1. Identify basic computer-related terminology.
 2. Outline the function of data processing.
 3. Illustrate the parts of the information processing cycle, and explain how each part is interdependent within the cycle.
 4. Illustrate parts of the computer processor.
 5. Compare the similarities and differences among various computer systems.
 6. Outline the events in history pertinent to breakthroughs in data processing.
 7. Describe and apply the capabilities of an operating system.
 8. Explain how the use of computer-related tools can increase productivity in an organization.

II. Word Processing

1. *Concepts of Word Processing*
 1. Explain and demonstrate basic word processing terminology.
 2. Explain the purpose of computerized word processing and identify applications for its use in business, industry, government, education, and personal uses.
 3. Identify and explain the functions of each equipment component within the word processing system.
 4. Identify two types of storage devices within the word processing system.
 5. Demonstrate the use of each equipment component within the word processing system.
2. *Word Processing Applications*
 1. Outline and explain the steps in the document cycle.
 2. Use the steps in the document production cycle to produce a document.
 3. Explain and demonstrate the formatting features of a word processing software package.
 4. Explain and demonstrate the editing feature of a word processing software package.
 5. Explain and demonstrate the searching/locating feature of a word processing software package.
 6. Demonstrate the use of the word processing software to produce a report, memo, and letter.

III. Electronic Spreadsheets

1. *Concepts of Electronic Spreadsheets*
 1. Use terminology common to electronic spreadsheets.
 2. Describe the structure of electronic spreadsheets and the purpose for which they are used.
 3. Identify capabilities of electronic spreadsheets.
 4. Contrast and compare electronic spreadsheet software packages.
2. *Electronic Spreadsheet Applications*
 1. Plan a spreadsheet and design a template for it.
 2. Enter and manipulate data.
 3. Write and use a simple macro.
 4. Demonstrate some advanced mathematical functions.
 5. Print and graph the results and save the template.

IV. Database Management

1. *Concepts of Database Management*
 1. Use terminology associated with database management systems.
 2. Explain the purpose and benefits of databases.
 3. List typical capabilities of database management software.
 4. Describe three types of database structures.
 5. Discuss criteria for comparing software packages.
2. *Database Management Applications*
 1. Create database.
 2. Design and edit input and report forms.
 3. Enter and manipulate data.
 4. Query the database.
 5. Use selection criteria for printing reports.

V. Computer Communication Tools

1. *Telecommunications*
 1. Properly use and define basic telecommunications terminology.
 2. Describe the development of telecommunications and its uses.
 3. Contrast and compare three types of modems.
 4. Explain typical features of microcomputer data communication software packages.
 5. Discuss procedures for uploading and downloading information.
 6. Describe the kinds and types of teleconferencing, including bulletin boards.
 7. Identify concepts of networking.
2. *Concepts of Computer Graphics*
 1. Define and use graphics-related terminology.
 2. Describe basic graphic concepts.
 3. Discuss important graphic design concepts.
 4. Discuss the differences between presentation and free-drawing graphics.
 5. Match different types of graphs with types of information appropriate for demonstration with those graphs.
 6. Match different types of graphic hardware with graphic applications appropriate for that hardware.
 7. Outline and discuss several different applications for computer graphics.
 8. Create several graphic images to represent a variety of information.
 9. Identify tools for preparing information for mass distribution including graphics.
3. *Desktop Publishing*
 1. Identify desktop publishing terms.
 2. Define the basic goal and historical development of desktop publishing.
 3. Compare methods of traditional publishing and desktop publishing.
 4. Describe the components of desktop publishing.
 5. Discuss various software programs used in desktop publishing.
 6. List eight basic areas of planning to consider when preparing a graphics document for desktop publishing.
 7. List the guidelines for working with various graphic representations.

8. Demonstrate the tools and procedures for producing documents using available desktop publishing procedures.
4. *Business Application Software*
 1. Define utility programs.
 2. Identify the use of several utility programs.
 3. Use utility programs to enhance computer management techniques.
 4. Identify and describe various types of productivity software
 5. Load, access, and use two productivity programs.

VI. Social Implications of Computer Usage

1. Social Implications

1. Identify terminology related to computer crime, computer users, and new computer devices and techniques.
2. Identify the major issues and technological developments related to computers and society.
3. Describe the ethical and legal issues that have arisen as a result of the computer revolution.
4. Identify privacy issues involved with electronic data storage.
5. Explain the reasons for concern about the reliability of computer systems.

COMMON ESSENTIAL ELEMENTS

75.87 Office Education

a. The elements in this subsection are common to office education programs and shall be included in each course at the appropriate level. They are described here to preclude repetition in each course. Every school offering office education shall provide courses which include the following essential elements:

1. Leadership concepts and skills. The students shall be provided opportunities to:
 - (A) demonstrate skills, characteristics, and responsibilities of leaders and effective group members;
 - (B) demonstrate a knowledge of parliamentary procedure principles;
 - (C) Plan and conduct leadership activities; and
 - (D) prepare for effective citizenship and for participation in our democratic society.
2. Concepts and skills related to successful employment and/or postsecondary training. The student shall be provided opportunities to:
 - (A) identify employment opportunities and preparation requirements in the chosen field;
 - (B) identify effective methods to secure and terminate employment;
 - (C) demonstrate effective communication skills both oral and written, and follow through in assigned tasks;
 - (D) demonstrate dependability and punctuality;
 - (E) demonstrate productive work habits and attitudes;
 - (F) understand the importance of taking pride in the quality of work performed;
 - (G) recognize the dignity in work;
 - (H) develop skills in planning and organizing work;
 - (I) apply required methods and sequences when performing tasks;
 - (J) apply principles of time management and work simplifications when performing assigned tasks;
 - (K) identify ethical practices and responsibilities; and
 - (L) understand the importance of the application of organizational policies and procedures.
3. Concepts and skills associated with Entrepreneurship. The student shall be provided opportunities to:
 - (A) identify opportunities for business ownership;
 - (B) understand the risk and profit motive factor;
 - (C) understand the elements and advantages of the free enterprise system; and
 - (D) explain the role of small business in the free enterprise system.
4. Concepts and skills related to safe working conditions. The student shall be provided opportunities to identify and apply safe working practices to all training situations.

5. Concepts and skills associated with human relations and personality development. The student shall be provided opportunities to:
 - (A) understand the importance of maintaining good health and proper appearance for effective job performance;
 - (B) understand oneself and others;
 - (C) exercise self-control;
 - (D) accept and use criticism;
 - (E) recognize basic human relationships as they relate to business success; and
 - (F) demonstrate characteristics for successful working relationships.
6. Concepts and skills related to personal and business management. The student shall be provided opportunities to:
 - (A) explain how management assists in reaching personal and family goals;
 - (B) explain the management process;
 - (C) describe the role of management in controlling stress;
 - (D) identify and understand personal checking accounts;
 - (E) identify and understand personal loan application processes;
 - (F) identify and understand different financial institutions;
 - (G) identify the role and functions of business management;
 - (H) understand the lines of authority; and
 - (I) identify effective supervisory techniques.

Common Essential Elements Competencies

I. Leadership

1. Explain the role of leadership in our society.
2. List advantages and disadvantages of becoming a leader.
3. Name and describe three leadership styles.
4. List the basic principles of parliamentary procedure.
5. Describe the essentials of a good meeting.
6. Explain the function and purpose of committees.
7. Write the order of business for a meeting.
8. Participate in orderly meetings conducted.
9. Identify characteristics and responsibilities of effective group members.
10. Plan and conduct leadership activities.

II. Successful Employment

1. Identify skills necessary for employment in a business situation.
2. Identify sources to use when seeking employment.
3. Prepare a resume and a letter of application.
4. Complete an application form.
5. Demonstrate proper interview and communication techniques.
6. Describe the components of ethical conduct in the job.
7. Apply principles of time management.
8. Describe the importance of organizational policies and procedures.

III. Entrepreneurship

1. Define terms/traits associated with entrepreneurship concepts and skills.
2. Describe why learning entrepreneurship concepts and skills is important.
3. Discuss those reasons why starting a small business may be beneficial.
4. Recognize those personality traits which are common to successful entrepreneurs.
5. Discuss those factors which should be considered before opening a small business.
6. Compare and contrast the risks and rewards of entrepreneurship.
7. Recognize the difference between the various economic systems.
8. Explain the role of small business in the free enterprise economic system.

IV. Safety

1. Identify general safety procedures and concepts in the business working world, including:
 - a. Describe accident causes and prevention's.
 - b. Identify government involvement in safety.
 - c. Identify safe working practices employed in the office.
 - d. Recognize areas of computer safety.

V. Human Relations and Personality Development

1. Describe grooming habits, personal hygiene, and clothing wardrobe appropriate for office.
2. Identify factors of human relations that allow understanding of self and others.
3. Analyze basic human relation problems as they relate to business success.

VI. Personal and Business Management

1. Explain the management process and identify the role and functions of business management including the lines of authority and effective supervisory techniques.
2. Explain how management assists in reaching personal and family goals.
3. Describe the role of management in controlling stress.
4. Identify and understand different financial institutions.
5. Identify and understand personal checking accounts.
6. Identify and understand the personal loan application process.